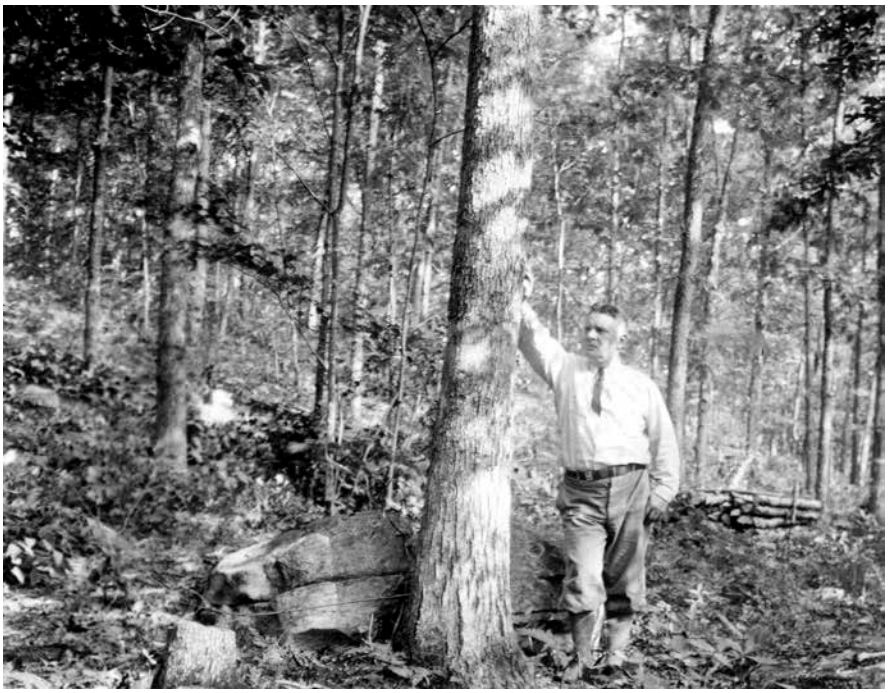
HISTORY OF FORESTRY IN CONNECTICUT

BY AUSTIN F. HAWES
(Written 1952 - 1957)



Austin Hawes (1879-1962) in Natchaug State Forest, circa 1934
(CAES archives)

Preface

After decades as a forester in Connecticut, much as State Forester, Austin Foster Hawes set down in 1952 to begin what became 359 page manuscript that he finished in 1957. The manuscript is a legacy of experience for the heirs who would inherit the forests. He told about years of reforestation despite smoking fires, leveling hurricanes, cracking ice, and decimating blight. He proudly documented sales of timber, posts and charcoal to pay for forest improvement. He argued for scattered picnic spots in State forests to accommodate families that couldn't visit distant national parks. He described the C.C.C. camps that put unemployed youth to work during the Great Depression.

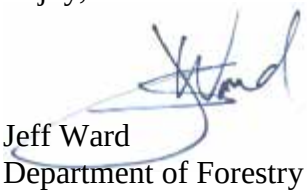
Leading acquisition of State forests, fully 73 percent accumulated to 1962, and then managing them until his retirement in 1944, Hawes knew what he wrote. He studied at Tufts University and in Europe, and in 1903 he graduated from the Yale School of Forestry. He wrote well, and the Library of Congress still holds 13 of his publications, such as "Hurricane damaged forests, still an important state asset" written defiantly amid the ruins of the 1938 hurricane. The Connecticut Agricultural Experiment Station, where he entered State service in 1904, and the Connecticut Forest and Park Association preserved copies of his 359 page manuscript.

After decades of stewardship by the Connecticut Forest and Park, the original manuscript with photos was transferred to the Connecticut State Library where it is archived as RG 169:007, Connecticut Forest and Park Association records, Box 17, Folder 22. All photos are from the collection of The Connecticut Agricultural Experiment Station, except for those photos from the original manuscript that are used with the permission of the Connecticut State Library.

The slow growth of trees, and the outcome of events and experiments through decades rather than days, heightens the worth of observations that span the decades. Hence in 2007, The Connecticut Agricultural Experiment Station began converting Hawes typewriting into this file to facilitate distribution on the internet as a searchable resource.

The typewritten manuscript was scanned page-by-page by R. Vidro, J. Colon, and K. Regan before conversion into a single document. C. Ariori, E. White, and A. Simpson corrected many scanning errors. P.E. Waggoner careful eye was responsible for the majority of copy-proofing in the first two-thirds of the document. J. Ward completed the proofing and added formatting consistent with original manuscript. Original manuscript page numbers are in red superscript. Hawes' obituary was published on May 11, 1962 by the Hartford Courant.

Enjoy,



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Austin F. Hawes, 83, Dies, Pioneer State Forester

Austin F. Hawes, 83, retired State Forester under whose leadership the state acquired nearly 73 per cent of its present forested acreage, died Thursday at his home, 1044 N. Main St., West Hartford.

Mr. Hawes was state forester from 1921 until he retired in 1944. He entered state service in 1904 as a forester at the Connecticut Agricultural Experiment Station.

After studying forestry in Germany and France, he was made State Forester of Vermont in 1909. He entered the National Forestry Service in Washington, D.C. in 1910, remaining there until taking the chief forestry post in Connecticut.

Received Award

In 1955 he received the Conservationist of the Year Award from the Natural Resources Council of Connecticut. The citation at that time said he was preeminent above all others in the development of forestry in Connecticut.

Much of the land acquired during his administration came as gifts from persons who recognized Mr. Hawes' ability as a forester.

He labored without stint to improve, develop and protect the forests of the state, the citation said. He was quick to see the needs of forestry, and was often far ahead of his time in trying out new ideas.

Pioneered in Radio

Mr. Hawes was among the first foresters to use radio for forest fire control. During his administration, the amount of area burned out by fires was cut way down, due largely to the system he worked out using town wardens for preventing and controlling fires.

He was also among the first to start a monthly department magazine, to start a program of forest research, and to inspire his staff to give information to the public about good forest practices and fire control, the citation said.

After his retirement, Mr. Hawes devoted much of his time to forestry research and writing. He also traveled extensively in Yucatan, Guatemala and Mexico, and frequently lectured on his experiences to groups in the state. A subject of particular interest to him was Central American archaeology.

AUSTIN F. HAWES

Born in Bay State

He was born March 17, 1879 in Danvers, Mass., son of Mr. and Mrs. Frank M. Hawes. He was a graduate of Tufts College and Yale University School of Forestry, class of 1903. In 1936 Tufts presented him the degree of master of science for distinguished service in his profession.

Mr. Hawes was a fellow of the American Forestry Assn., a member of the Cosmos Club, Washington, D.C., and a member of the executive committee of the Talcott Mountain Protective Assn.

He leaves his wife, Mrs. Myra Dowling Hawes, and a sister, Mrs. Edward A. Currier of Newton Center, Mass.

Funeral services will be held Sunday at 2 p.m. at the James T. Pratt Funeral Home, 71 Farmington Ave., with the Rev. Dr. Wallace Grant Fiske officiating. Burial will be in Derby Line Cemetery, Derby Line, Vt. There will be no calling hours prior to the time of service.

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CHAPTER I. THE PERIOD OF PROPAGANDA[1]

(P1)As was only natural, the beginning of interest in forestry in Connecticut followed closely that in the country at large. As early as 1849 the Patent Office had called attention to the rapid destruction of the Nation's forests and predicted that this would scarcely be appreciated until our population reached 50 million. The Census of 1870 was the first to consider our forest resources and emphasized the fact that they were not inexhaustible. In 1876 an agency in the Department of Agriculture was created, which eventually grew into the U.S. Forest Service. Dr. Franklin B. Hough was appointed under this authority. The Timber-Culture Act was passed by Congress on March 3, 1873. Under this, title to 160 acres of public domain could be secured by planting 40 acres to trees.

PROFESSOR WILLIAM BREWER.

Connecticut was fortunate in having at the Sheffield Scientific School at Yale, Professor William H, Brewer, a man of tremendous versatility and wide experience. It was due, to a considerable extent, to his leadership that Connecticut was in the forefront in agriculture and forestry. He had been appointed Norton Professor of Agriculture in 1864. Two years later, the State Board of Agriculture was established by the General Assembly. The agricultural courses at Yale from the time of Brewer's appointment included courses in forestry for undergraduates and special lectures which were open to the public.

Brewer was appointed to the State Board of Agriculture in 1868 and during the next 32 years gave 29 lectures at public meetings of the Board.(P2)

If anyone deserves to be considered the father of forestry in Connecticut that man is certainly Professor Brewer

[Gifford] Pinchot says in his "Breaking New Ground", "*I found (when he came to Yale) that Brewer knew far more about forests at home and forestry abroad than any other man at Yale*." "*He had published a highly intelligent mapping and description of the distribution of American forests.*" "*Dear old Professor Brewer, that wise and kindly compendium of universal Information, was among the last of the great men who took all learning for their province.*"

Another man who advanced the interest in forestry in these early days was T.S. Gold, who maintained a private school of agriculture on his farm in Cornwall. He served continuously for 30 years as a member of the State Board of Agriculture and of the Board of Control of the Experiment Station. Later his son, Charles Gold, took a prominent part in the forestry movement.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION

The Connecticut Agricultural Experiment Station has had so much to do with the development of forestry in Connecticut, it deserves more than mere mention in these pages. Founded in 1875, it celebrated its seventy five years of accomplishment in 1950. As Director Horsfall said on that occasion: "*The establishment of this station was an event of far more than local significance. It marked the acceptance in America of an idea, the adoption of a public*

[1] For much of the information in this Chapter I as indebted to the following excellent manuscripts ; "The Background of the Forestry Department of the Connecticut Agricultural Experiment Station" by W.O. Filley, about 1940; and "History of Forestry in Connecticut" by Henry W. Hicock, 1950

policy; namely, that society has a real stake in scientific research." In l875, three great movements were underway in southern New England, which had an Influence both on agriculture and forests.(P3) Industrialization [, which] started soon after the War of 1812, was progressing at a rapid rate. The settlement of the cheap western lands resulted in the importation of food, and the abandonment of numerous hilly farms in New England. The rapid development of railroads made western lumber as well as food available to our people.

The establishment of this first Agricultural Experiment Station was largely due to the efforts of Professor Samuel W. Johnson, who was its Director from 1877-1899. Writing in 1855[2] Professor Johnson had predicted: "*Agriculture will flourish from that day when practical men shall be philosophical enough to appreciate the philosopher's thoughts; and philosophers practical enough to calculate the farmer's profits.*" California and North Carolina followed Connecticut's example within two years.

REPORTS OF THE STATE BOARD OF AGRICULTURE

Beginning in 1877 when Brewer delivered a lecture on "Woods and Woodlands" and continuing through 1900 there were few reports of the Board of Agriculture that did not refer to some phase of forestry or arboriculture. In his first lecture he began by saying that it was very natural for an agricultural people in their hunger for tillable land to disregard the value of the forest and clear land which was not adapted for farming. He pointed out that the area of improved land in Connecticut had dropped from 74 percent of all farm land in 1850 to 69.6 percent in 1870 and added: "*I verily believe that we have much land in the State which would today be three, four or even five times more valuable as timber land than it is now as nominal cleared or improved land.*"(P4)

In this paper he gave some information which has never before come to the attention of the present writer [Hawes]. In England the various forest laws were scattered through various documents "*until they were collected by Manwood, an eminent legal writer and published in a separate form in 1598 - in a little volume I have entitled 'A Treatise and Discourse of the Laws of the Forrest'.*" Brewer continued! "*A few extracts may be instructive 'A Forrest Is a certain territory of woody grounds, fruitful pastures, privileged for wild beasts and fouls of Forrest, Chase, and Warren to rest and abide, in the safe protection of the King for his princely delight and pleasure, and therefore a Forrest doth chiefly consist of these four things, that is to say of vert [forest vegetation], venison, particular laws and privileges and of certain meet officers appointed for that purpose to the end that the same may the better be preserved and kept for a place of recreation and pastime, meet for the royal dignity of a Prince.' The officers chosen to the above work were called foresters, and at first their function was to protect the game and later the wood. On the continent this office was often hereditary.*" … "*To kill a king's deer was a greater offense than to kill a king's subject, Manwood says: 'As a Forrest having neither beast of Venire, nor beast of chase in it, is no Forrest at all, but a void and unprofitable piece of ground'.*" These quotations of Brewer's from this early English compilation of laws serve two purposes. In the first place it shows the paucity of materials on forestry available in English to a speaker in the 1870's; and secondly it gives something of the background of the thinking of our

[2] Address on "Why an Agricultural Experiment Station" by Arnold Nicholson on the occasion of the 75th Anniversary of the Station in 1950.

ancestors who settled Connecticut within a half century after Manwood wrote. The emphasis on the value of the game over the trees of the forest had been bred into their bones and probably one of the greatest feelings of freedom which they experienced was the privilege of killing game without regard to the king's pleasure.(P5) For the most part the danger from the Indians was less than it had been from the king's foresters. Whether the royal prerogative to the game of England had existed among the Saxon kings might be an appropriate study for a doctor's thesis. We know that England of the ninth century was still half forest, earth or fen, and that wild beasts: bears, boars and wolves were common, and that even at that early date most of the improved land was owned by a few families[3].

Brewer emphasized that "*Forestry is as definite a branch of industry as agriculture. There are schools to aid it, professors to teach it and experiment in it, and there is an enormous literature relating to it, mostly in Continental languages.*" The Spanish commissioner to the Centennial Exposition at Philadelphia in 1876 had listed 1100 titles in Spanish alone. "*What species,*" Brewer continued, "*are to be ultimately successful in cultivation, can only be determined by actual experience. No science nor practical skill can predict before trial what trees are to flourish successfully, what merely live, and what utterly fail. Long before the American Independence under the auspices and encouragement of a Society formed in the mother country, it was demonstrated that it was useless to plant cloves, coffee, cinnamon, camphor and similar trees in these colonies.*"

"*Most of the magnificent elms which have made New Haven famous were planted only about 100 years ago." As to the durability of wood Brewer said: "A chest was shown at the Centennial Exhibition of oak from timbers of Salisbury Cathedral, over 600 years old, and still sound as ever.*(P6) *The oaken doors of Westminster Abbey are believed to be over 1200 years old and one of the oaken coronation chairs there has been in its present position over 570 years.*"

"*Planting forests for use is an almost untried experiment in this state.*" He then referred to several such plantations in Massachusetts, one of 200,000 trees near Lynn made in 1846; and another near Woods Hole in 1853 where the larch and Scotch pine were already 40 feet high. He added that some of the railroads were paying 50 cents, 60 cents and even 75 cents apiece for ties.

In the discussion which followed Brewer's paper Mr. Augur, a nurseryman, said he considered chestnut the most valuable wood raised in Connecticut, especially for bridges.

Mr. Wadsworth spoke of a tract that was cut over when the Farmington Canal was built about 1824. "*It grew up and last year half of it sold for $100 an acre and half for $70, mostly chestnut.*" He considered the high quality of the growth due to the fact that cattle had been kept out.

In the Report of [1877-1878] Mr. James H. Bowditch of Massachusetts spoke on Forests and referred to the large amount of planting which had been done on Cape Cod: 560 acres at Truro planted by 20 parties on land purchased at 25 cents an acre. He referred to Mr. John Doane of Orleans, 86 years old, as the oldest silviculturist [sic] on the Cape. His plantations had suffered from two fires. Other extensive plantations had been made by Charles Francis Adams, Jr. of Quincy and H.G. Russell at East Greenwich, R.I.

In the discussion Brewer said he had been going through the newspaper for the period 1796 and l815 and had found that before 1800 there was a manufactory in Killingworth for the

[3] "The Age of Faith"' by Will Durant, 1950

preparation of sumac where they worked it up into shape for morocco and leather tanners.(P7) Mr. Bill from the floor reported that in his town (name not mentioned) "*tons upon tons are gathered by parties who make it their exclusive business to gather, dry, thresh and send to market this product. It is used for tanning morocco (goat skins) in New York and Boston very extensively and brings from $40 to $60 a ton. It is the common sumac.*"

Hon. B.G. Northrop made a report on "Economic Tree Planting". He had spent three months in Europe at the request of Gov., Hubbard looking into forestry matters. From his speech we would infer that he spent most of his time interviewing authorities rather than tramping about in the forests. He said that a German catalog listed 1815 volumes on forestry issued prior to 1542, and that about a hundred new books a year were being turned out in Germany on Forestry.

He [Northrup] gave the famous remark of Colbert, the French statesman, to Louis XIV in 1680: "*France will perish for want of wood.*" Northrop referred to "*a great Sahara*" in the towns of North Haven and Wallingford.

In his lecture of 1880 Professor Brewer said: "*As early as 1759 there was a Society for the promotion of silk culture, for the mother country wished to encourage this industry which was not competitive, At one time mulberry trees were planted along the north side of the New Haven green, and as late as 1790 about 420,000 silk worms were raised by sixty families.*"

The first Agricultural Society of Connecticut was organized in 1794 in Wallingford and the Transactions of this society were published as a small pamphlet in 1802. There were only two older agricultural societies in the United States.

Mr. Augur in the report on Pomology in 1883 called attention to a law passed in 1881 which provided the magnificent annual bounty of one dollar for each quarter mile of roadside planted with elm, maple, tulip, ash, basswood, oak, black-walnut or hickory; but not to exceed ten years.(P8)

He also spoke of the Davis plantation of five acres of white pine made on "sand waste" in West Stafford about 1840. The father said to his five sons: "*If you will plant to white pine and take care of it*" you may have it. The land was then nearly worthless and is now (1883) worth $80 an acre.

The report for 1885 contains an exhaustive address by Dr. B.G. Northrop of Clinton which he began by referring to the action of the previous Legislature. This charged the State Board of Agriculture with the duty of inquiring and reporting to the next Assembly: 1st, whether any legislation is necessary or practicable to prevent the destruction of forests; 2nd, whether any legislation is desirable and proper to encourage the planting of forest; and 3rd, whether any plan can be devised in cooperation with Massachusetts, Vermont and New Hampshire for the protection of forests located near the sources of streams flowing into and through Connecticut.

Dr. Northrop's whole discourse dealt with the question of Forest Influences. He wisely refrained from claiming that the rainfall was reduced by deforestation but confined his remarks to the effect of the forest upon run-off. He quoted at some length the investigations of the newly created Forestry Division of the United States Department of Agriculture in regard to the watershed of the Ohio River, where the forest area had been reduced from 13 million acres in l853 to 5 million acres in 1881, and quoted the conclusion of Commissioner Loring of the United States Department of Agriculture: "*The forest area of Ohio is already below the limit which is consistent with the highest salubrity of the atmosphere as well as the greatest prosperity of the*

agricultural and commercial interests of the State."[(P9)]

Mr. Northrop said that the ten year exemption from taxation on plantations not exceeding in value $15 per acre had not produced results and recommended doubling the period of exemption to twenty years.

He then discussed at some length the new institution of Arbor Day which had been adopted by several states through the influence of Ex-Governor J. Sterling Morton of Nebraska.

Speaking on the broader aspects Prof. Brewer said: "*The manufacture of wooden things laid the foundation of Connecticut's greatness, for after all, this state is a manufacturing state.*"

The Pomologist's Report contained an item on the famous Wethersfield elm. "*In the spring of 1749 John Smith of Wethersfield went to his pasture after cattle; he got off his horse to get a whip and seeing a vigorous young tree in wet ground pulled it up, took it home on his horse and set it out where it now stands.*"

The Report of 1886 gave [Board of Agriculture] Secretary Gold's report of the delegates to the American Forestry Congress held in Boston. The delegates: Hon. E.H. Hyde, Dr. J.W. Alsop, T.S. Gold, and Dr. G.A. Brewer. Among the objects of the Congress was to urge the Legislature[s] of the various states to enact laws for the prevention of fires. The report states that Forestry associations have been formed in Minnesota, Ohio, Canada, Manitoba, Colorado and New York. Forestry Commissions have been appointed in Vermont, New Hampshire, New York, Pennsylvania Ohio, Colorado and California. Arbor Days have been instituted in fifteen states and in Canada. Fire legislation in Canada has already been adopted as a result of this Congress.[(P10)]

Mr. Copp reported on a case which he had in the New London court against a young man who had burned over on his land in the spring of 1877. The whole sympathy of the neighborhood was for the young man, but Mr. Copp pushed the case as a matter of principle and a verdict was found in his favor, although the damages were not high. It was the first prosecution under this law for many years. The railroads were considered the worst offenders. One man had had $12,000 worth of cordwood burned by a railroad. He brought suit but failed to recover.

In the Report of 1887 Dr. B.G. Northrop elaborated upon the value of Arbor Day. The Legislature of 1886 finally passed the bill to create Arbor Day in Connecticut so that the first observation was in the spring of 1887. He quoted from Washington Irving: "*There is something nobly simple and pure in a taste for trees. There is a grandeur of thought connected with this heroic line of husbandry worthy of liberal, free-born and aspiring men.*"

The report of 1891 contains a paper by Dr. E.H. Jenkins, Chemist of the Experiment Station on Wood Ashes.

The Report of the State Grange contains a valuable record by "Flora" on "Remarkable or Historic Trees." "*In East Hartford there was a white oak which was set out in 1778 by a Hessian prisoner of war taken at Trenton. The limbs made 36 cords of stove wood and the tree measured 17 feet in circumference. Many towns had outstanding trees. In Southington there was a White oak under which Lafayette's troops rested on the way to join Washington. At Elmwood in West Hartford there still stood the beautiful row of elms which gave the name to this village*" "*The largest apple tree in the country*" was the boast of Delos Hotchkiss of Cheshire,[(P11)] which at one time bore 110 bushels of apples. Its girth was l4 feet 6 inches, height 60 feet and spread of branches 6 rods. The age was according to family tradition at least 140 years in 1880. In

Woodstock were the McClellan elms, planted June 15, 1775, by the grandmother of Gen. McClellan in the western part of the same town were elms under which Washington had rested his horses while he took a drink at the inn. On Woodstock Hill there was a tree planted by Gen. Grant in 1870 and another by President Harrison in 1890. Nearby were specimens planted by Presidents Hayes and Harrison and others planted by Blaine, Sherman and Greely. In Middlefield there was a chestnut 10 feet in diameter. In Union a sassafras which measured between 14 and 15 feet in circumference for the space of 10 feet from the ground. The Ledyard elm, Hartford, was planted by the African traveler John Ledyard, native of Mystic, Conn., about 1765. He came down the Connecticut River from Dartmouth College in a canoe. "*This tree stands in Arch Street on the bank of the Little River on property of the Lincoln Iron Works. The right to stand as long as it lives was reserved to the tree in the conveyance of the property to the present owners. The circumference is 13 1/2 feet, spread of branches 100 feet.*" This tree died and was cut down in December 1896

In the Report of 1894 Prof. Brewer had an instructive paper on "Preservation of Wood from Decay."

Four things are necessary for the natural decay of wood: water, warmth, air, and fungus growth. It is only of late that fungus has been proved to be necessary. If any of these things are left out wood is practically as durable as stone. It may wear out but it will not rot. Multitudes of specimens of wood have remained sound in the dry climate of Egypt for thousands of years. In the Arctic regions also wood lasts indefinitely because of the cold.[(P12)] *"I have found pieces of wood on the summits of high mountains left there by adventurous Indians long ago. The wood becomes gray and weather-beaten and worn, but it remains sound. This matter of preservation of wood from rot has been a subject of study with me for many years, actively so for over 40 years.*" The practice of seasoning hardwoods under water for tools was common in Connecticut seventy years ago. Our grandfathers also seasoned small timber with smoke, the creosote of which is very preservative. "I *have known it to be used for hop-poles and the stakes for vineyards.*" "*Even very dry wood will absorb moisture.*" "*All 'dry rot' is due to a fungus, which begins on the surface, pushes the threads of the spawn into the pores and in time they ramify through the mass. Bridges fall and buildings give way when the timbers seem sound on outside inspection. A tall spire of a church in New Haven suddenly began to lean and totter in a gale in February, 1890. It was taken down, as some of the timbers were badly rotted near certain mortises.*" The workmen called it 'dry rot' but on testing several pieces before and after thoroughly drying, one piece lost 23 and the other 24 per cent of water.

This [Brewer's] report also included a complete list of the 84 species of wood collected by Horace F. Walker, South Glastonbury and sent to the Columbian Exposition in Chicago in 1893. In addition to these six tree trunks twenty-five feet Long, forming pillars in the Forestry Building were contributed as follows: From Cornwall, white pine, John E. Calhoun; white wood or tulip, Niles Scoville; white oak, T.S. Gold; North Canaan, chestnut, Burton A. Pierce; white ash and hickory, Samuel A. Eddy.

The Report of 1895 contains an interesting article: "A Century of American Lumbering" by J.T. Rothrock, Father of Forestry in Pennsylvania.[(P13)]

Dr. Rothrock's article is well illustrated with photographs of forest stands and devastated areas. To quote only a few passages: "*Do you know that there are thousands of people living in the country who have never seen a full grown tree? I mean a tree that has attained the largest*

size possible such as a sassafras four feet in diameter. I know a White oak growing in New Jersey that is nine feet in diameter; also a chestnut, tree over eight feet, and one twelve feet in diameter." "*The rapid removal of timber has practically exterminated certain trees.*"

"*I do not believe that our forests add a particle to the rainfall of the country, but I do know that four-fifths of the water that falls in a forest area is taken up by the ground and four-fifths of the water that falls on a cleared area runs off.*" He described a trip taken the previous year in Pennsylvania. He followed up the side of a stream that was so dry "*I could not find water sufficient for my horses. In passing up the stream I discovered-signs of a terrific freshet; large masses of rocks had been carried down the mountain-side … On arriving at my hotel across the mountain, I said to the landlord: 'You seem to have had a severe freshet here.' 'Yes,' he said, 'we have. My sister and five children were drowned, in that stream.' "*

Speaking of chestnut Dr. Rothrock said: "*If you go into southern Europe, you will find that chestnut-meal is used there and that chestnut-meal is used much as we use potatoes. I have lived for months in Southern Germany on chestnut meal, and I think the time will come when the chestnut tree will be valued for food.*[(P14)] *I have in mind a friend who obtained in one year $42 worth of chestnuts from one tree.*"

Secretary Gold spoke of the great increase of forest fires in Connecticut during the preceding 50 years, The Report for 1896 contains an address by James Draper of Worcester, Mass. on "Our Home Grounds and Our Roadsides." Said Oliver Wendell Holmes in a letter: "***I have written many verses, but the best poems I have produced are the trees I have planted on the hillside which overlooks the sinuous Housatonic***." [emphasis editor]

In the same publication is an "Act concerning Shade and Ornamental Trees on Highways" approved April 19, l893. This provided for the designating of trees along the highways as public shade trees by marking them with a nail having the letter C impressed upon the head. It provided a fine for injuring or destroying trees so marked.

Dr. Wm. Britton described the Elm Leaf Beetle which appears to have entered the state rather recently.

The Report of 1898 contains an instructive article by Edwin Hoyt of New Canaan on "Forest and Ornamental Trees and Shrubs." It deals primarily with ornamentals.

The Report of 1900 contains an article on "Ancient or Remarkable Trees."

The Charter Oak was the most famous tree we have had in Connecticut. It was an old tree when Hartford was settled. The hiding of the Charter to preserve it from the demand of Sir Edmund Andros by Wadsworth in 1687 made it historic. It was blown down in an August gale in 1856.[(P15)]

At the time of the first survey of Cornwall about 1740 there was a primeval white oak now gnarled and twisted with hollow trunk, a remnant of the forest which covered the country when the first settlers arrived. The "Queen Margaret's Elm" in Sharon had a branch spread of 100 feet and a circumference of 13 feet, 4 inches. It received this fanciful name from "*a witty but sadly distraught lady*". The Wayside Elm in Wilton had a circumference of 20 feet, 3 inches. Widger's Oak in Essex was planted at the foot of "*Old Widger's grave by those who buried him.*" He was one of the last of the aborigines and lived in a cabin nearby. This white oak is still in good condition 2 ½ feet in diameter.

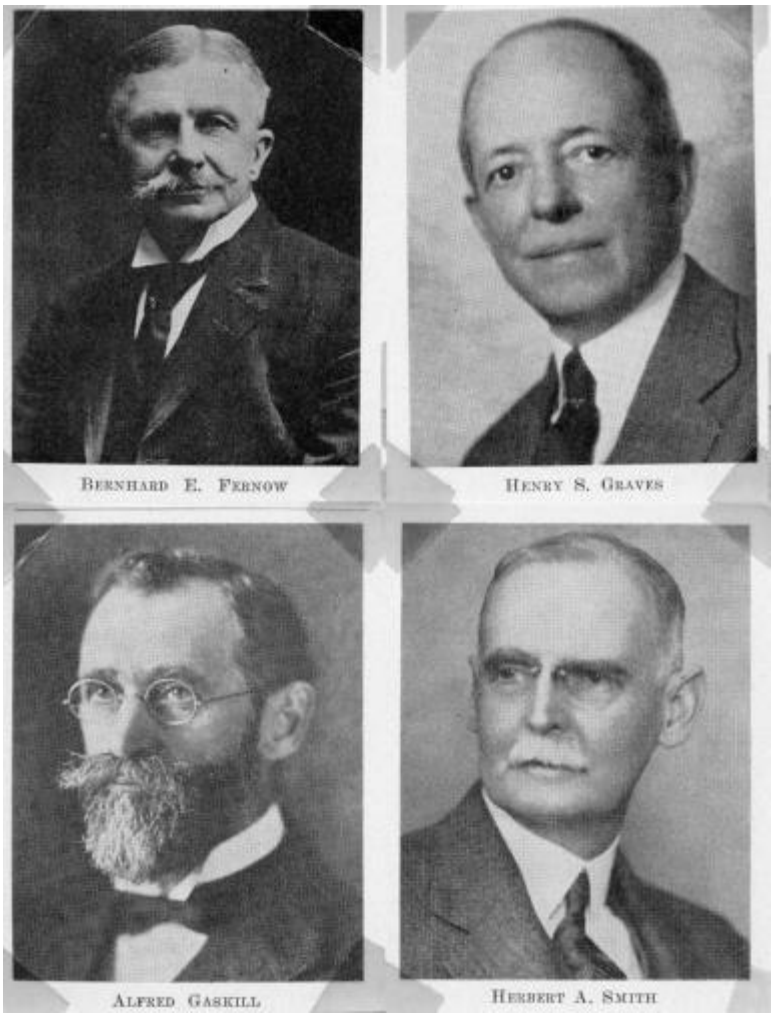

Figure 1. Early leaders of American Forestry (Connecticut State Library collection).

BEGINNINGS IN NATIONAL FORESTRY

In Washington little progress was made by the first two agents who had no technical knowledge, but when they were succeeded by Dr. B.E. Fernow, a German trained forester, considerable valuable research was done, certainly much more than the meager appropriation of $8,000 would indicate. In 1886 the Agency was raised to the dignity of a Section in the Department of Agriculture.

The first forestry association had been formed in St. Paul, Minnesota in 1876[4] and in 1882 the American Forestry Association was organized at Cincinnati. At the time Dr. Fernow, now chief of the Division of Forestry, assumed the added responsibility of Secretary of this Association "*it had dwindled to a small number of faithful ones.*" However, its propaganda had been so successful that Secretary John Noble of the Interior Department advocated and succeeded in getting passed in 1891 'An Act to Repeal the Timber Culture Laws'.(P16) This Act, giving authority to the President to set aside forest reservations entirely changed the policy of the Nation in regard to the Public Domain. In this connection, Dr. Fernow adds[5] "*The name of Edward A. Bowers (a Connecticut man) in 1887 Special Agent in the Department of Interior, and later Assistant Commissioner of the General Land Office, deserves mention as most active in securing this reservation policy.*" Mr. Bowers, who was later a Lecturer in the Yale School of Forestry, was a delightful gentleman of broad culture. Acting under this authority, Presidents Harrison and Cleveland proclaimed previous to 1894 seventeen forest reservations, with a total estimated area of 17,500,000 acres.

In 1884 the General Assembly of Connecticut authorized the appointment by the Board of Agriculture of a Committee of three to investigate and report on the subject of Forestry. This Committee consisted of Gold, Brewer and Northrop. At the annual meeting of the Board

[4] "History of Forestry" by B.E. Fernow
[5] "History of Forestry" by B.E. Fernow

Northrop lectured on "How Can We Promote an Interest in Forestry". During the discussion two remedies were advanced: (a) A draft of a forest fire law; and (b) Liberalization of the Trees Planting Act of 1877. A bill which was favorably reported by the Committee on Agriculture in 1877 failed of passage by the General Assembly and it was not until twenty years later that a forest fire law was passed.

GIFFORD PINCHOT

In the foregoing enough has been said to indicate that considerable spade work for forestry had been done in the country at large and in Connecticut before the appearance on the scene of that energetic young man, Gifford Pinchot.(P17) Yet it is hard to imagine what the course of forestry might have been or how long it would have taken our nation to adopt constructive forestry measures if Mr. James Pinchot had not turned his son's thoughts toward forestry in his days at Yale. It was his enthusiasm and personal magnetism aided by his wealth and social position which enabled Gifford Pinchot to focus the attention of the country first upon forestry and later upon the broader field of Conservation.

Gifford Pinchot had been born at his mother's home in Simsbury[6], Connecticut in 1865, and spent much of his boyhood there so that he considered Connecticut his second state. His home was at Milford, Pa. After studying Forestry in France and other countries he had established himself as a consulting forester and had started George Vanderbilt on the first extensive forestry undertaking in the country on his game preserve at Biltmore, North Carolina. In 1895 Alvin Schenck, at Pinchot's suggestion, was brought over from Germany to manage the Vanderbilt forest. In the same year Pinchot was employed by the New Jersey Geological Survey to report on the forests of southern New Jersey. His report was published as "Silvicultural Notes on the White Cedar" by Gifford Pinchot, State Forester. This was perhaps the first time the title of State Forester was used in the east although its connotation was quite different from that which it later acquired.(P18)

CONNECTICUT FORESTRY ASSOCIATION

In view of the fact that Pinchot had been born in Simsbury and was now making a name for himself in forestry, it is not surprising that the Connecticut Forestry Association, which has been so largely responsible for the advancement of forestry in the state, was organized in Simsbury, On December 30, 1895 a group of friends and neighbors met at the home of Rev. Horace Winslow in Weatogue and organized this Association, an event which may be considered the first milestone in the progress of forestry in Connecticut. Mr. Winslow, according to his daughter, Miss Mary Winslow, long corresponding secretary of the Association, was a "*lover and planter of trees*". As the leading spirit in the organization, he was naturally its first president. Several other states already had such associations, and "Forest Leaves" the mouthpiece of the Pennsylvania Forestry Association says that there were 30 signers of the Constitution of the Connecticut Forestry Association including the Governor of the State. This must have been

[6] In his story "Breaking New Ground" Pinchot says little of his Connecticut forebears. He mentions that his Grandfather Pinchot was in the Army of Napoleon and was driven out of France upon the restoration of the Bourbons. His maternal grandparents were Amos R. Eno and Lucy Jane Phelps of Simsbury. Mr. Eno became wealthy through investments in New York real estate. They had seven children: Amos, Mary, Anna Maria, Henry Clay, Antoinette, John Chester and William Phelps. Mary married James Pinchot.

Governor O. Vincent Coffin of Middletown. In the first Constitution of the association, the Governor was ex officio a member. This provision was later discontinued. The formal organization was on Arbor Day, l896, when Mr. Winslow's election as president was confirmed. Mr. T.S. Gold of Cornwall was Vice President; Mr. John B. McLean, brother of Governor McLean, was Secretary; and Mr. Alfred H. Spencer, Jr. of Hartford, Treasurer.
The objects of the Association were stated as follows:

1. To develop pubic appreciation of the value of forests and of the urgent need for preserving and using them rightly.
2. To disseminate information relating to the science of forestry, the proper use of forests, and the care of trees.(P19)
3. To secure the passage and enforcement of laws directed toward the preservation, maintenance and increase of forests in Connecticut and throughout the United States.
4. To forward the establishment of State and National Parks and Reservations and the introduction of forest management in these and other forest lands.
5. To introduce and encourage the study of forestry and kindred topics in the schools.

There are no minutes available for the early meetings, but we know that they were held on Arbor Day in 1897, '98 and '99. On the latter data the Association had a membership of over fifty.

On Arbor Day 1898, Major John B. Preston of Hartford was elected president in place of Mr. Winslow, who declined because of ill health. Major Preston served through 1902, when he was succeeded by Walter Mulford, then forester of the Experiment Station and first State Forester. Alfred Spencer continued as treasurer through 1914; and Miss Mary Winslow as Recording Secretary from 1901 through 1904, and Corresponding Secretary until her death in 1926. Public meetings of the Association were held in Unity Hall, Memorial Hall and the Board of Trade in Hartford. The records mention the following as helpful to the Association: Gifford Pinchot, then Chief Forester of the United States; Dr. Bernard E. Fernow; Hon. Warren Higley of New York City; Dr. John T. Rothrock, Commissioner of Forestry in Pennsylvania; Rev. N.H. Eggleston, one time U.S. Commissioner of Forestry.

FORESTRY EDUCATION

An important event in the forestry education field was the action of the Legislature of New York in 1898 authorizing the establishment of the State College of Forestry at Cornell University.(P20) The Act carried with it authority to acquire a large tract of land in the Adirondacks for field instruction of students, for research and demonstration of applied forestry. This was the first technical School of Forestry in the country. Dr. B.E. Fernow was appointed Director of the School with Filibert Roth and John Gifford as his associates.

In the same year Gifford Pinchot was appointed Chief of the Division of Forestry in the U.S. Department of Agriculture under Secretary James Wilson. Pinchot had persuaded Henry S. Graves (Yale 1892) to take up forestry, and after a period of study at Biltmore and in Europe, he was appointed Assistant Chief in the Division. President Cleveland, who had been a staunch friend of forestry, had set aside just before going out of office in 1897 over 21 million acres of Forest Reserves, which more than doubled the area of the Reserves. These lands, all in the West, were areas which Pinchot and Graves had explored.

YALE SCHOOL OF FORESTRY

Feeling the need of a force of trained foresters, Gifford Pinchot and his parents, Mr. and Mrs. James Pinchot, established the Yale School of Forestry, with an initial endowment of $150,000, later increased to $300,000. President Arthur Hadley, a great advocate of training young men for public service, was enthusiastic in this new Yale undertaking. The School opened in the fall of 1900 under Henry S. Graves, Director, assisted by Professor James W. Toumey, a graduate of Michigan State College, 1889.(P21) The old residence of Professor Othniel C. Marsh on Prospect St., New Haven, was the location of the school for several years. The establishment of this school was to have an important influence upon the course of forestry in Connecticut.

DR. EDWARD H. JENKINS

On June 16, 1900, Dr. Edward H. Jenkins succeeded Professor Johnson as Director of the Agricultural Experiment Station. He had been chemist for the Station for nearly twenty-five years, and had also served for a time as botanist, for in these days it was still permissible for a chemist to know something about other subjects. Perhaps it would be more correct to state that plant pathology had not yet emerged as a specialty in the botany field. In 1897, W.C. Sturges had succeeded him as Botanist and established the work in Pathology.

About the time that Dr. Jenkins assumed his duties as Director, the Experiment Station received, a legacy, which was known as the Lockwood Fund. This legacy, from the estate of William R. Lockwood, who died in 1896, was of considerable consequence in the establishment of the forestry work at the Station. Influenced, no doubt, by his own observations of the abandonment of farm land; by the interest of Professor Brewer; the creation of the Connecticut Forestry Association, and more recently by the establishment of the Yale Forest School, Dr. Jenkins, as one of his first acts as Director, purchased with Lockwood Fund money a tract of brushland near Poquonock known as Mundy Hollow; and an area of sand plain above Rainbow christened Lockwood field, both in Windsor.

Figure 2. View of East Rock in 1899 from the Connecticut Agricultural Experiment Station (CAES archives).

Figure 3. Walter Mulford, first Station Forester, 1901-1904, later became Dean of forestry for Cornell and the University of California (CAES archives).

POSITION OF STATE FORESTER ESTABLISHED

At the meeting of the Station Board of Control on January 15, 1901, Dr. Jenkins announced these purchases and that Mr. Walter Mulford had been engaged as Forester of the Experiment Station to carry on forestry work for a salary of $1000 per year and field expenses.[(P22)] Mulford was one of the earliest graduates of the newly established forestry school at Cornell. He reported for duty in April 1901, and in the following June, the General Assembly approved an act "Concerning the Reforestation of Barren Lands". Under this Act the Station was authorized to appoint a State Forester to buy land for a state park (later called state forest), to plant such land and hire personnel to carry out the work. The Station Forester was named State Forester and given charge of the lands purchased under the Act. This establishment of the position of State Forester as an administrative officer of the state government, a position, which was to last for over forty years, was the second milestone in the forestry movement in Connecticut.

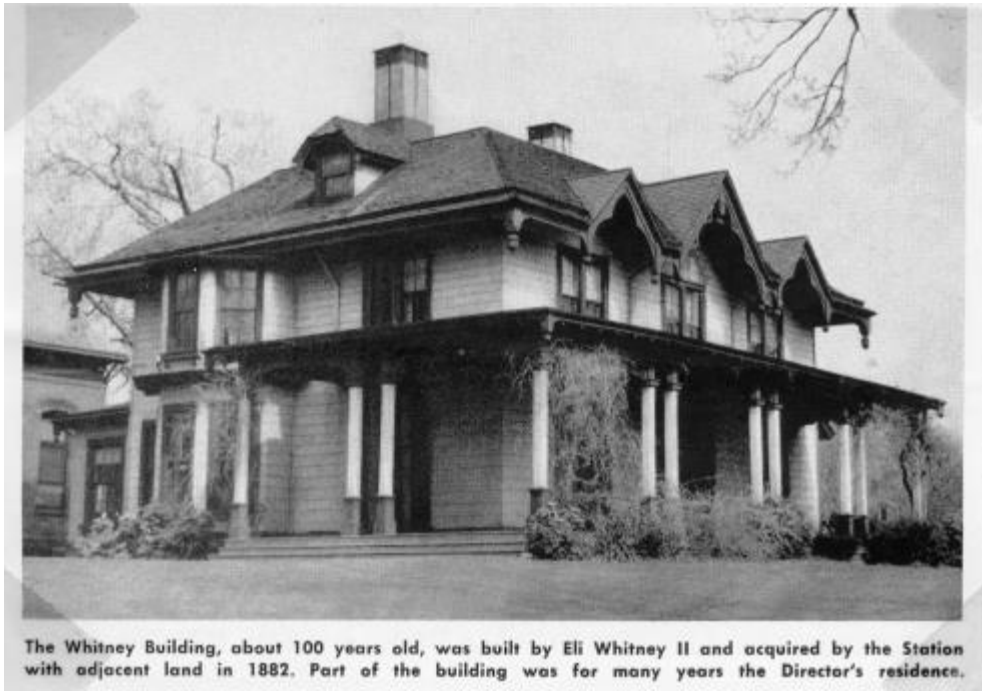

Figure 4. Original home of The Connecticut Agricultural Experiment Station (Connecticut State Library collection).

CHAPTER II. THE TASK AHEAD

(P23)Looking back over those years it seems that a state forester was a mere pygmy tackling a Gargantuan task. Mulford started with the infinitesimal appropriation of $2000, although it would perhaps be equivalent to three times that amount today. For a generation the portable sawmills had been eating further and further up the hillsides removing timber which had been too inaccessible for the old water powered mills. The demand for railroad ties, poles and posts resulted in practically universal clear cutting, and the slash from all these operations made tinder, which resulted in great forest conflagrations. Almost every slope was covered with unsightly scars where gaunt fire-killed trees stood out against the horizon. The evergreen trees, pine and hemlock particularly, had suffered from repeated fires and natural reproduction of these species had been almost eliminated so that the woods were becoming more and more patches of hardwood brush. This condition was accentuated a few years later when the Chestnut Blight wiped out the most valuable species of the state and added thousands of acres of dead sprouts and poles to the tinder for even greater and hotter forest fires.

Although Connecticut is still devoid of large timber, most of its regrowth being less than sixty years old, it would be difficult for the younger generation accustomed to our healthy stands of growing trees, to imagine the devastated conditions of the forests which existed in the first two decades of this century.

MULFORD'S WORK

In his first report (1901) Mulford outlined his program as follows.(P24)

1. To study the condition of woodland and idle land in Connecticut.
2. To do experimental work on reclaiming wasteland.
3. To do actual work in the improvement of woodland.
4. To disseminate information and give practical help to woodland owners

That Mulford devoted more time to the second objective was undoubtedly due to Dr. Jenkins' suggestion in line with what Professor Brewer had indicated as important several years previously. The Mundy Hollow tract near Poquonock had been purchased by the Station for the dual purpose of providing a water supply for tobacco experiments on adjoining land as well as for forest planting experiments. It had been clear cut and severely burned shortly before it was acquired by the Station. Seedlings and plantings were made here in 1902, 1903 and 1904, but two fires, the last and most severe in 1904, killed virtually every tree that had been planted and no further effort was made to reforest it. Finally in 1938 the area was sold by the Station.

Lockwood and Clark Fields near Rainbow, the latter purchased by the Experiment Station in 1905, comprising 105 acres were "located on an extensive level plain of glacial outwash origin"[7]. The soils are very deep and are classified as Merrimac coarse sand. The water table at a few points is within five feet of the surface, but usually lies much deeper.(P25) At the time of purchase the tracts had been abandoned for agricultural use, and bore a sparse cover of bunch grass, and an occasional patch of gray birch or pitch pine. In one place there was a beautiful large spreading White oak. This tract had been acquired at approximately $5.00 an acre.

The Rainbow Plantations, which were started by Mulford in 1902, and continued until 1912, when the whole area had been planted, were among the earliest, if not the first, forest plantations to be established in the country for experimental purposes. For many years they were a show place and were visited by forest students and by foresters from various parts of the United States and from foreign countries.

Figure 5. Rainbow Plantation in 1908 (Connecticut State Library collection)

A Planting Plan had been made by agents of the U.S. Division of Forestry under the direction of William L. Hall. These were the days when many mixtures of species were being tried out. Viewed from the light of our present knowledge, it seems foolish to plant many of the deciduous trees on this sandy land, but we must be mindful of the reply of Columbus to his critics after his great discovery. Professor Brewer used to tell his classes that an experiment might be just as useful for its negative as for its positive results. Experiments in seeding were practically all a failure, Seventeen deciduous and sixteen evergreen species, both native and exotic, were used.

Mulford never had an office at the Experiment Station because of lack of space. For a time he boarded in New Haven and later at Rainbow with Judson Leonard, who was caretaker of the plantations. After his marriage, July l, 1903, salary was raised to $1,200 and the Mulfords lived in Windsor.(P26) He established a small nursery on the tobacco field at Mundy Hollow for raising seedlings to be planted on Station and State land.

Taking advantage of the new law

[7] "History of Forestry in Connecticut" by H.W. Hicock

authorizing the establishment of a state forest, Mulford examined various lands offered for sale, especially abandoned farms in Union. He finally purchased the first state forest in Portland, being led to this decision because of its central position in the state and because it was well covered with a thrifty young growth of chestnut, at that time the most valuable species in Connecticut.

He gave advice to forest owners whenever requested and gave a few addresses in various parts of the State. Aside from his work on the Station and State lands, his most comprehensive work was the preparation of a Planting Plan for the Higby Mountain Reservoir tract of the Middletown Water Board. This plan, which called for the planting of 168 acres, was conscientiously followed for many years. In the first four years, 1903 to 1905, inclusive, when 60 per cent completed, 121,292 trees were planted at a cost of $1662. In addition to white pine, which was the predominant tree used, considerable quantities were planted of the following species : Red oak, catalpa, yellow oak, chestnut, white oak, red pine, Italian chestnut, white ash, swamp white oak and tulip.

Mulford resigned en July 1, 1904, after laying a good foundation for the forestry work. He spent a year with the U.S. Division of Forestry to broaden his background for teaching at the University of Michigan under Filibert Roth. In 1911 he returned to Cornell as Dean to reestablish forestry and remained there until called to be Dean of the School of Forestry at the University of California.

ACKERMAN'S SHORT TERM

On July 1, 1904, Alfred Ackerman, Instructor in the Yale school of Forestry, succeeded Mulford as Station and State Forester of Connecticut, but resigned in a month to become the first State forester of Massachusetts.[(P27)] Ackerman felt that more emphasis should be placed, upon the handling of existing woodlands and stressed that side of the work during his brief sojourn in the State.

Because of numerous conspicuous older plantations compared to the relatively few examples of well managed natural stands, there is a tendency in these days to think that the early foresters over emphasized forest planting. With the possible exception of New York State where cutting on State Reservations was prohibited by the State Constitution, I do not believe this is true. Many more people were interested in planting, and although attempts were made at Stand Improvement, most of these fell by the wayside, as well as many plantations, but enough plantations came through to create the impression.

HAWES BECOMES THIRD STATE

Upon the resignation of Ackerman, Dr. Jenkins apparently offered the position to Hugh P. Baker who had just graduated from the Yale Forest School. Baker declined it because he had a better offer, and wrote me in Washington asking if I would be interested in the position of Station and State Forester of Connecticut. I had been with the Division and Bureau of Forestry intermittently since the summer of 1900 when I was a Student Assistant in the Adirondacks. After completing my course at Tufts College, I worked in Washington and Arizona; entered the Yale School of Forestry in the fall of 1901, worked in Maine in the summer of 1902, and in Michigan that fall. After receiving my degree as Master of Forestry at Yale, I had charge of a party in New Mexico and of an out-door exhibit at the Louisiana Purchase Exposition in St. Louis in the spring of 1904.(P28)

Figure 6. Austin Hawes, third Station Forester, 1904-1909, later became Vermont and Connecticut State Forester (CAES archives)

Upon receipt of Baker's letter I consulted Pinchot. He advised me to accept the Connecticut position because of the opportunity to perform an important service, but told me if I did I must take advantage of every possible opportunity to speak, as it was important to get the forestry question before the people. This was very unpleasant advice to me, for at that time I was very diffident and hated to speak. However, I accepted the position and reported at the Experiment Station on August 1, 1904. As the Station was still cramped for space, Dr. Jenkins suggested that I secure a room that would also serve as any office. I accordingly located on Lake Place, New Haven, where I had lived as a student in the Forest School.

My first duty was naturally to acquaint myself with the experimental plantings Mulford had started in Windsor and the Portland State Forest [now Meshomasic State Forest], and make my plans for their continued development. As a commentary on the transportation facilities available at the time, the following account of an inspection trip of the Portland Forest will serve as an example. This forest can easily be reached by auto today in an hour from New Haven or Hartford. In the period of which I am writing, I was obliged to take an early morning train from New Haven to Middletown; then take a trolley which ran once an hour to Gildersleeve, the end of the line. There Del Reeves, the Caretaker of the Forest, would meet me with his old horse and buggy and we proceeded, at a pace never exceeding a walk, to his farmhouse, a distance of about four miles. We arrived there about lunch time, which in winter allowed only about three hours to look over the forest. Consequently, in order to accomplish anything three days were required for the amount of field work which can now easily be accomplished in one day.(P29)

Having got my bearings, so to speak, I waited expectantly for requests from landowners for advice, but none came. Week after week passed without any contacts until I came to the conclusion that the public was unaware of the opportunity for free advice on woodland management. I, therefore, prepared a circular entitled "Forestry for Farmers of Connecticut" which was published in 1904 as Forestry Publication No. 1 of the Experiment Station. This Included, some interesting statistics showing that the proportion of improved farmland in the state had decreased since l850 from 74 per cent to 46 per cent, while in the same period the value of farm property had increased, from 82 to 113 million dollars. The abandonment of land was attributed partially to the movement of the meat-producing industry westward. It was pointed out that while the number of horses had increased in a half century 96 per cent, and the number of dairy cows 48 per cent, there had been a marked decrease in meat producing animals; other meat cattle 29 per cent; sheep 87 per cent and swine 39 per cent. The conclusion was that there was a very large area which could profitably be devoted to timber raising. Paragraphs were then devoted to the subjects of stand improvement and forest planting. In the concluding paragraph an offer of advice was made to forest owners. Whenever a written plan was to be made, the landowner was to pay the expenses of the forester. This, of course, was merely committing to print what Mulford had been doing whenever opportunity offered.

It is difficult for a forester today with his multifarious duties to imagine how depressing it was to a young and energetic forester to find the public entirely apathetic, if not critical, of his work. The common attitude of the farmer of those days was one of amused indifference.(P30) Gifford Pinchot, in writing of Frederick Law Olmsted[8] in connection with the Biltmore Forest said: "*What was worth almost more than the opportunity to work was the fact that Mr. Olmsted took my profession seriously, and took with equal seriousness the assumption which he made that I was able to practice it. I have never forgotten what it meant to a youngster just getting started to be treated to some extent as an equal, and I shall always hold myself deep in his debt for what he did for me.*"

Figure 7. Severe fires such as this East Hartford fire in 1905, discouraged active forestry (CAES archives).

In this period of discouragement my "Olmsted" was Franks Stadtmueller, a tall, kindly man of German descent, who had a serious outlook on life combined with a very good sense of humor. He was the manager of the Vine Hill Farm and C.M. Beach Jersey Cattle Co. of West Hartford and also President of the Connecticut Sheep Breeders' Association. My acquaintance with him started on an inspection trip of the Rainbow plantations, which he and Dr. Jenkins made with me. Mr. Stadtmueller asked me a question about planting. It was the first interest that anyone had shown in my work and my first reaction was to think he was making fun of forestry. From the moment I realized that he was serious he became one of my best friends,

[8] "Breaking New Ground" by Gifford Pinchot

and I had gone a long way toward gaining the self-assurance which is so necessary for success in any field.

FOREST FIRE DISCOURAGED FORESTRY

As time passed I became more and more convinced that the lack of interest in forestry was due largely to the ever present danger of forest fires. Landowners could not be expected to invest money in any long-term program when there was so much likelihood of its going up in smoke.(P31) Our own experience at Mundy Hollow was similar to the experience of many owners. The spring of 1903 had been an especially bad fire season throughout the northeast and was still fresh in peoples' memories. The lack of organization and the crude methods of fighting fire are well illustrated by my account of a fire at Rainbow, written on May 15, 1905 which I quote herewith;

> "*Tuesday morning a forest fire sprang up several miles east of our land at Rainbow. It burned all that day and night and the next morning was only a short way from our plantation, so we saw we had to fight it. The wind was blowing hard and the fire came on rapidly, burning way up into the tops of pine trees and making a terrible heat. We started a back fire on the other side of the road, and this did some good, so the fire did not jump the road where we had a fire line. In a corner where we had not plowed out our fire line it got over on to our land and burned an acre or so before we could put it out with shovels and wet bags Then we found that the fire had circled around and threatened in another place. It was like being in a battle to tell where to place the men, and was pretty exciting. It was burning so hotly on the other side that we couldn't put it out, and might have lost our plantation, except for a plow we borrowed. With this and a horse we made some furrows and succeeded in stopping the fire without losing one planted tree. This was the worst fire known in that region for a great many years. Altogether it burned over about 8000 acres*."

In general no attempt was made to extinguish forest fires, but when they endangered buildings, all the neighbors would turn out with shovels, wet sacks and other farm tools and try to save the buildings.

I talked with various people about the need of a fire warden organization. Mulford felt that it would be impossible to get a bill through the General Assembly, but some forest owners were more hopeful. I recall especially the representative from Stafford Springs, a Mr. Baker, who owned land in Union. He and others gave me encouragement so I spent some time in drafting a bill which was duly presented and eventually in June 1905 was passed.(P32) Undoubtedly Dr. Jenkins' influence was most powerful, but others from various sections of the state helped as well as the Forestry Association. It was the third milestone in the establishment of forestry in Connecticut, and the first effective measure in slaying the dragon of forest devastation.

FIRST FOREST FIRE LAW

The essence of this law, which was called Chapter 238, Public Acts, 1905, was as follows:

It made the state forester ex officio state forest fire warden without additional salary. He had supervision of town fire wardens and was authorized to enforce the forest laws and prosecute violations.

Upon his request, and with his approval, the selectmen appointed a town fire warden for the term of one year. The Town Fire Warden could divide his town into districts and appoint District Wardens in charge of these districts.

The work of these fire wardens was "to prevent and extinguish forest fires" in their respective towns. "Forest fires" meant fires in brushland as well as woodland. This emphasis was essential at the time, as many people did not think of cut-over land as potential forest land. Fire wardens had control and direction of all persons and apparatus while engaged in extinguishing forest fires outside the limits of cities and boroughs, and had authority to arrest without a warrant persons taken in the act of violating the laws for the protections of woodlands.

During seasons of drought town fire wardens could establish patrols.[(P33)] They had authority to use all necessary means for confining and extinguishing fires and might even set backfires in an emergency. They could destroy fences and plow land and summon as assistants any male resident of the town between the ages of 18 and 50 years, and require the use of horses and other property needed.

Wardens were paid 25 cents an hour while employed; and assistants at a price fixed by the town, but not over 20 cents an hour.

The law became effective August 1, 1905.

It will be observed that under this law fire wardens were town officials and the town was the unit of administration. This law continued in force essentially until 1921.

It may not be out of place to mention that this year of 1905 when this great step forward was made in Connecticut was the same year that the Bureau of Forestry in the U.S. Department of Agriculture became the U.S. Forest Service and the Forest Preserves of the U.S. Interior Department became National Forests under the Forest Service.

STATE BOARD OF AGRICULTURE

The meetings of the State Board of Agriculture continued to devote some time to forestry. In the discussion in December 1900 Professor Brewer defined Forestry thus: "*It is the conservation, care and profitable use of woodlands and forests.*" Whether the word "conservation" had been applied before, I do not know. Brewer and Pinchot had explored the West together, and very likely they developed this definition while sitting about a camp fire. Of Connecticut, Brewer continued: "*Anybody who goes from New Haven to Hartford will see regions that were once covered with pine forests and now are comparatively naked.*"[(P34)]

At this session Professor James W. Toumey, of the newly established Yale Forest School, spoke. At the conclusion of his remarks, Mr. Hoyt said he believed if anything were to be accomplished in forestry it must be done by the State, and that there should be a Commissioner of Forestry.

The Report of 1902 contains an address by Walter Mulford, the new state forester, on "Forestry for the Earner", "*Forestry is a business and must be made to pay.*"

In the same issue is an address by Professor H.S. Graves, Director of the Yale Forest School. He stressed the growing shortage of timber; the shutting down of mills; the substitution of new woods for old; and said that in parts of New York Stare stumpage prices for cordwood had reached $2.50 per cord. "*There must be in the different states men who can not only do executive*

work in connection with the management of forest reserves, or other forest tracts, and who can carry on the scientific study of the growth and characteristics of trees and forests, but who can also lead in influencing public opinion and, if necessary, draft intelligent bills to be brought before the legislatures of the state." In contrast to such men would be the ranger type of forester such as the summer school at Milford, Pa. would train.

The Report of 1903 contains a second paper given by Mulford on December 9, 1902 on "Making the Woodlot More Profitable." In this he emphasized the importance of selling timber by the thousand feet instead of by the lot and illustrated by mentioning a lot that sold for $200 instead of $1000 which it was worth. He gives a picture of the woodland of the time:**(P35)**

> "*On large areas in Connecticut there is nothing but gray birch, pitch pine, and scrub oak where white pine ought to be and would be if things were managed properly; also sumac, hardback, pin oak and black birch where there should be chestnut, white oak, yellow oak, tulip, ash, etc.*"

His talk was followed by one on "Forestry for the Farm" by Dr. John Gifford of the College of Forestry, Cornell University. After describing a successful catalpa plantation in Kansas he said; "*I can see nothing impractical in the practice of cooperative forestry. Let the farmers of a certain district pool their interests and share the profits of placing their forests under the control of an expert, or of a State Forester.*" "*The greatest enemy of the forest in America is fire.*"

CHAPTER III THE END OF THE CHESTNUT ERA

ACQUISITION OF UNION STATE FOREST

(P36)For some time I had felt that our second state forest should be in the pine type since Connecticut has to import so much of its softwood lumber. Union was at that time an inaccessible and almost abandoned town, but its old fields had grown-up to second-growth white pine in which the portable sawmills were doing a thriving business converting the trees to boxboards. The best way to reach it from New Haven was to go by train to Willimantic, change to the Central Vermont Railroad, and hire a horse and carriage in Stafford Springs for the eight mile drive to Union. In June 1905 Mr. Stadmueller took me from Hartford with his own horse and carriage. We spent the first night in Stafford Springs, and the following few days in looking over cut-over land in Union. He was considering buying a large area for sheep growing. With the assistance of Mr. Henry Fiske, a portable millman of Stafford, I succeeded in purchasing 300 acres at $3.57 an acre. The Portland state forest at that time had 1100 acres purchased at an average price of $1.75 an acre. At that time the legal limit which could be paid for state forest land was $4.00 an acre.

FIRE WARDENS APPOINTED

In order to implement the new forest fire law which became effective in August 1905, the selectmen of all towns were circularized and asked to appoint forest fire wardens by October 1. In many cases the first selectman appointed himself. In a few instance politicians unsuited to the work were appointed, but in most cases conscientious men were chosen who did as well as could be expected considering the entire lack of equipment and training.(P37) Only 44 towns had fire wardens by October 1, and 39 more appointments were reported by January 1, 1906. Up to March 1, 1907 town wardens had been appointed in 138 towns; and 211 district wardens, making a force of 350 men.

The results of a questionnaire sent to the wardens appointed in 1905 brought out the fact that this was not a particularly bad year, but applying the figures obtained from 42 towns at the same ratio to the whole state the conclusion was reached that between 30,000 and 40,000 acres had burned previous to October 1 causing a damage estimated at between $120,000 and $160,000. Progress was slow. Only 66 towns reported fires in 1906. Of the 88 fires reported 64 had been extinguished by wardens and their assistants. Obviously much educational work remained to be done. It was not until 1910 that the fire wardens were sufficiently organized and trained to send in reports of real statistical value.

STUDY OF THE CHESTNUT

Ever since the early cuttings of the Colonial settlers in the virgin forests the chestnut, because of its prolific sprouting capacity and rapid growth, had been gaining in importance. Now that the demand for fuel wood, both for domestic and industrial use, had fallen off the chestnut had become the most highly prized tree. Because of its lasting qualities, large quantities of it were required annually for railroad ties, fence posts, telephone and telegraph poles, and piles. In the Naugatuck Valley it was still used in considerable amounts for annealing copper. It seemed

Figure 8. 100-yr-old chestnuts in Scotland, CT (CAES archives)

obvious that foresters should know more about the growing and reproductive habits of such an important species.(P38) Toward this end a detailed study was undertaken with government assistance on July 1, 1905, with the help of two student assistants from the Yale Forest School; Walter O. Filley of Hew Haven and J.O. Hopwood. They were paid $25 a month by the U.S. Forest Service. Mr. Filley, whose father was a photographer in New Haven, had spent some time with the Eastman Company in Rochester, NY and was of great assistance because of the high class photographs which he obtained in the woods. Plots were laid out at first in the Portland state forest and later in other parts of the state. Photographs were taken from the same position before and after thinning in each plot and a careful diagram was made showing the crowding of crowns before thinning and the improved light conditions after thinning.

The chestnut research project was carried on in Portland, Windsor, Scotland, Washington, Morris, Bethlehem and Litchfield. Filley also secured excellent photographs of cross sections of chestnut trees demonstrating perfectly the accelerated growth after thinning.

Bulletin 154, which was published in September 1906, based on the results of these studies, was the most comprehensive study of the chestnut which had been made up to that time[9]. In fact, as the tree entirely disappeared during the following decade, it is doubtful if any other publication contains as complete data on this valuable species. A few of the findings may be of interest. Volume tables show that an average tree 23 inches in diameter contains one cord of wood, or 11 railroads ties, and .1 of a cord;(P39) or a pole between 50 and 60 feet long; or if sawed into lumber 372 board feet. A table of height growth showed that at the age of 50 the average height was 64 feet while it was only 79 feet at the age of 100 years, indicating that the tree grew rapidly in early life and slowed down after 50. The study of sprouting habits revealed that the number of sprouts from a single stump often exceeded 100 and there was little difference in this regard between seedlings and sprouts. In fact, sprouts from older sprouts were found to have undiminished capacity for resprouting. The fact that its sprouting ability lasted until well past 100 years of age was one of its striking characteristics. The largest chestnut of known age found in the study was a beautiful tree in Hampton which was 110 years old, 98 feet high and contained 1225 board feet of lumber. The oldest tree found was in Washington. It was 21 inches in diameter, 68 feet high and 135 years old. In Branford there was a tree of unknown age 23 1/2 feet in circumference.

[9] Hawes, A.F. Hawes, 1906. Chestnut in Connecticut and the improvement of the woodlot. CT Agricultural Experiment Station Bulletin 154, 41 p.

FOREST NURSERY ESTABLISHED

By 1905 considerable interest in private forest planting was evidenced, and after the passage of the forest fire law and appointment of fire wardens, the next step in encouraging private forestry appeared to be making forest nursery stock available at low cost. It was already evident from the Rainbow experiments and other observations that evergreens were much better suited for planting on light soils than broad leaf species. A small nursery was established in 1905 on rented land near Poquonock, but the following year it was moved to the Rainbow plantation. By March 1907 an inventory showed 37,700 two year seedlings and 403,000 one year seedlings; mostly white pine, but with small quantities of Scotch and Austrian pines, Norway spruce, and balsam fir.(P40) It was thought at this time that Scotch pine was resistant to the white pine weevil, and the poor form of the tree in this country was not realized until later.

Figure 9. First Connecticut state nursery, located on the grounds of The Connecticut Agricultural Experiment Station, in 1912 (CAES archives)

The offer of the Experiment Station to supply nursery stock to private owners at cost price met with such immediate response it was necessary for the Station to buy stock in the open market. In the spring of 1906 the Station purchased from an Illinois nursery 100,000 2 yr. old white pine seedlings at $3.75 a thousand. Altogether in that first year there were planted in seventeen towns by private owners and corporations 92,800 seedlings, mostly white pine, but with 5,000 each of chestnut and Scotch pine. The largest plantations were 15,000 white pines used by the Yale School of Forestry on land of the Ansonia Water Company and 20,000 white pine set out by Mr. J. Edward Heaton on his land at the foot of Mt. Carmel.

PRIVATE FOREST MANAGEMENT

Aside from this rather widespread interest in forest planting, the interest in better forest management was practically confined to rich men's estates. Thus in September 1905, I went over a 100 acre tract in Stonington owned by a Miss Dreier, who had a large summer home there. Writing of it at the time, I said: "I was met at the Stonington Station by a swell rig, coachman in high hat, etc." At the same time I inspected land owned by Dr. Williams of Stonington. Both were interested in improving their natural woods, and in planting.

Early in November 1905 I made a Working Plan of the Mountain Spring Farm owned by Mr. Edward Beach of West Hartford and managed by Mr. Stadtmueller. This farm, situated on the Talcott Mt. range in Farmington and Avon, included 308 acres of woodland and a considerable area of sheep pasture.(P41) The average age of the forest, as determined by forty sample trees, was 48 years. The two main features of the Plan called for thinning 272 acres, and

planting 53 acres within the next ten years. This work was started with enthusiasm, but was given up after the death of Mr. Stadmueller a few years later.

In December 1905 I examined, with Mr. Erwin, a wealthy railroad man of Hartford, land which he owned in the southern part of the state. His holdings comprised 1700 acres in Lyme and 800 in Saybrook, and as a first step he planned to plant 75,000 trees the following spring. Unfortunately he died suddenly soon after this inspection trip.

In August 1906 I advised Mr. Henry Taylor on the management of his beautiful estate overlooking the Connecticut River near Cobalt.

There was also at this time an increasing demand for talks on forestry. My first public talk was apparently in Thompson in October 1905, and soon after I gave an illustrated lecture before the Ladies Club of Cheshire. In March 1906 I repeated this lecture at Wesleyan University in Middletown. About 150 people attended.

OFFICE AT EXPERIMENT STATION

In September 1905 Dr. Jenkins showed me the new office which I moved in upon the completion of the building. This was a room 14 feet square in the northeast corner of the second floor of the new chemistry building. It had windows on both sides with a pleasant outlook of the Station grounds. This was an important step forward, as I was able to have a stenographer part time, and visitors at the Station often dropped in to talk about forestry.[(P42)] At the time I wrote of Dr. Jerkins: "*He is the finest man to work for one can imagine.*" He was a fine locking man with a pointed beard just beginning to turn gray at this time. One hardly ever met him that he did not relate a funny story. He had confidence in the men under him and encouraged them to develop their own initiative. He was always interested in the forestry work and never criticized anything that I did.

BROADENING MY VIEWPOINT

In the fall of 1905 I visited the Biltmore forest and Biltmore Forest School in North Carolina, both run by Dr. Alvin Schenck. In the following fall I spend several weeks inspecting forests in the Black Forest of Baden and in French forests of the Vosges and Jura Mountains, always in company with the forester in charge. Aside from technical information I secured on silviculture and forest mensuration, I absorbed a picture of forests which had been under good management for a long period of time. I have always felt that a forester working with our maltreated second growth forests, who did not have such a picture of a "normal forest" in the back of his head, was working under a considerable handicap. Another lesson which was driven home to me, both at Biltmore and in Europe, is that roads are the foundation of forestry. Some foresters have stressed silviculture and others marketing, but I have never lost sight of the fact that a forest must have roads before silviculture can be practiced, or products marketed.

PLANS WHICH NEVER DEVELOPED

Perhaps it is as important to record plans which never bore fruit, as those which did, as they illustrate the progress of thought at the time.[(P43)] In 1906 officials of the New York, New Haven and Hartford Railroad, which was still in a prosperous condition, were considering a plan to buy a large forest tract on which to raise their own ties and lumber. At that time ties were not treated and the Company was spending $600,000 a year just for ties. I recommended an investment of

$1,600,000 in land. In March Mr. Pinchot came to New Haven, and he and Dean Graves conferred with the Railroad officials.

The U.S. Forest Service offered to map and thoroughly investigate southern New England as to the feasibility of the Railroad buying 200,000 acres within eight miles of its tracks. Professor Graves assured me that I would have charge of the project, if the railroad Company went ahead with it. Probably because of other complications nothing came of this plan. Had the Company bought such a tract at prices then prevailing, it could hardly have failed to be a good investment.

At that time also Mr. Spalding, President of one of the New Haven banks, had several discussions with me about forming a corporation for the purpose of owning the managing forest land. I have often marveled at the failure of bank and insurances company executives to grasp the advantage for forest investments.

REPORT FOR 1907

The Report of the Forester for 1907 starts by quoting the prophecy of the U.S. Forest Service 'that the present supplies of timber in the country will be exhausted in twenty years'. The wonderful natural recuperative power of our forests was scarcely appreciated at this time.(P44) This report contains a record of all the old forest plantations in the state that had come to the forester's attention as well as the more recent plantations.

In the spring of 1906, Filley and I, assisted by Mr. George Towne, a local surveyor, planted 20,000 two year white pine seedlings in the Union State Forest. Figuring labor at $1.75 a day the cost of planting 1000 trees was estimated at $1.66, as we planted a little over 1000 trees a day on the average. In the spring of 1907 old mowings and pastures were planted with 50,000 two year white pines, 2,000 Scotch pines and 2,000 Norway spruce. Of this stock 10,000 case from the New York state nursery, and 50,000 had been purchased the previous year from the Biltmore forest nursery and held over in transplant beds. This plantation prospered well until the great hurricane of 1938 when it was completely destroyed.

In the spring of 1906, five small areas in the Portland state forest were planted with chestnuts by the Caretaker, Mr. Del Reeves. Most of these were eaten by squirrels, and the area was replanted the following year with white pine and Norway spruce.

The Middletown Water Board, under a Planting Plan prepared by Mr. Mulford, had planted between 1903 and 1906 about 121,000 trees on its Higby Mt. reservoir tract. The plan was evidently made along the same experimental line as that for the Rainbow area, for a considerable variety of broad leaf trees were planted as well as white pine. Mr. Bywater, the Superintendent at the time, took a commendable interest in the success of the undertaking.

Mr. L.W. Goodrich, Superintendent of the Hartford Water Board, reported that 150 acres had been planted around the West Hartford reservoirs.(P45) Besides using white pines, they had also experimented with acorns, hickory nuts and chestnuts, but with very little success. Unfortunately these pine plantations were never thinned and became greatly over crowded.

The Ansonia Water Company, under the able management of Mr. Theodore Bristol, had planted about 25 acres up to this time. These plantations and others made later were well managed under the direction of the Yale School of Forestry.

The New Haven Water Company has also been fortunate in having the advice and assistance of the faculty at the Yale Forest School: at first Professor James W. Toumey and afterwards

Professor R.C. Hawley. About 46 acres had been planted at this time mostly on the Maltby Park area. While some of these were later damaged by fire, a considerable area developed into a good stand.

Altogether the report estimated that about 635,000 trees had been planted in 1905 and 1906.

Of older forest plantations one of the best known was at Greenfield Hill between Bridgeport and South Norwalk. Here 10 acres had been planted in 1885 partly with pure white pine and partly with a mixture of white pine and European larch. A sample plot in this stand indicated an average stand of 30 cords per acre and a mean annual growth of 1.4 cords.

The Shaker plantation in Enfield had also received considerable publicity. This plantation, extending over 100 acres, was made by the Shaker community in 1874-76. It was on a loamy sand soil and the average height of the trees at 31 years was 40 feet.(P46) Sample plots-indicated an average stand of 15,000 board feet per acre and a mean annual growth of 486 board feet.

The oldest plantation found was the four acre stand of white pine in the northwest comer of Stafford already described in the reports of the Board of Agriculture. Mr. Edwin A. Davis of Somers said that the plantation was made by his father about 1836. The heights of the trees ranged from 65 to 80 feet. Plots indicated an average stand of 60,360 board feet per acre and a mean annual growth of 862 board feet.

Of a different character was the four acre plantation of hardwoods on the Vine Hill Farm in West Hartford near the corner of New Britain Avenue and South Main Street. This area had evidently been planted with black locust and other species about 1835, but so many hardwoods including oak, maple, elm and black birch had seeded in naturally, it was difficult to distinguish these from the planted trees. A sample plot indicated an average stand of 12,792 board feet per acre and a mean annual growth of 183 board feet.

The oldest forest, which was thought to be a plantation, was about a mile north of Litchfield village and belonged to Dr. Buel. The original piece of 23 acres was said to have been planted in 1812. However, as the stand was composed of native hardwoods, there was nothing but tradition to indicate that it had been planted. A sample plot indicated an average stand of 15,140 board feet per acre and a mean annual growth of 173 board feet.

SURVEY OF LITCHFIELD AND NEW HAVEN COUNTIES

During the summer of 1907 field surveys were made of the forests of Litchfield Country. With the aid of two assistants we covered most of the roads in the county on foot, mapping the forest and indicating type and age class on the topographic maps. Professor Ralph C. Hawley of the Yale Forest School made a similar survey of New Haven County and the results of these two surveys, the first of the kind ever made in New England were printed in 1909 as Forestry Publication No. 5.(P47) The results of these studies indicated 55 per cent of the area of Litchfield County and 46 per cent of that of New Haven County were in forest, which included the abandoned field type. This type in Litchfield County covered 70,000 acres and in New Haven County 43,000 acres. Practically all of the remaining forest was of the mixed hardwood type with the exception of 3000 acres of white pine in the former county. In Litchfield County only 1 per cent of the stand was considered to be over 60 years of age, while in New Haven County about 2.5 per cent was of the oldest age class. Rough estimates indicated a total stand of 5 million cords in Litchfield County and 2.8 million cords in New Haven County. Expressed in

lumber the figures were 322 million board feet and 4 million additional cords in Litchfield County, and 166 million board feet and 2.5 million additional cords in New Haven County. It would be interesting if comparable figures were available today.

Figure 10. The last virgin stand in Colebrook, Connecticut shortly before it was harvested in 1912 (CAES archives).

The most interesting result of this survey was the discovery in Colebrook of the largest remaining virgin forest in the state. Mr. Carrington Phelps of North Colebrook had inherited a tract which had been in his family from Colonial days. It included an area of "*between 200 and 300 acres of timber the equal of which it would be difficult to find in New England. It is for the most part a mixture of immense hemlock, beech, yellow birch, sugar maple, fine black cherry, ash, chestnut and oak, with a few giant white pines, and represents the most perfect mixture of the northern and southern New England forest types that the writer has ever seen*".[(P48)] It is very unfortunate that the State Park movement was not started early enough to save this remarkable forest. Because of financial pressure, Mr. Phelps was obliged to sell this timber a few years later and it was all cut.

Mention was also made in this report of the white pine stand in Cornwall owned by Mr. John Calhoun. "*He has here a few acres of the most magnificent white pines that can be found in the East and fully equal to the best timber of the Lake States.*"

EARLY AUTOMOBILE RIDES

While making the Working Plan for the Edward Beach tract in 1905, I had several rides in the automobile owned by his friend, Leonard Fisk, and somewhat later I had similar rides with

General Phelps Montgomery in his auto to his forest at the foot of Mt. Carmel. These are among the earliest rides in automobiles that I can remember. They were at that time considered as rich men's toys, and it was farthest from my thoughts that I would ever own one. The first automobile I ever saw was in Paris in 1899.

WHITTEMORE PLANTATIONS

In September 1907 I was engaged in making a Working Plan for the 400 acre tract in Middlebury belonging to Mr. Harris Whittemore, one of the wealthiest men in the state. He and his father had beautiful estates of the English type in that town as well as winter homes in Naugatuck where their business was located. Mr. Whittemore instructed me that he wished to invest $1000 in forestry as a beginning. The work which was carried on by his superintendent, Mr. William Shepardson, included thinning in the natural stands and planting a considerable area of abandoned fields. The plantations, which included both white and red pines, set out in 1908 and succeeding years, have been the best example of forestry in that part of the state.(P49) Mr., Shepardson, a very mild mannered man, was so conscientious in following instructions that he wrote down in a small notebook every suggestion made to him by Mr. Whittemore or by the foresters and saw to it that the men working under his direction complied to the letter. Consequently the forest throughout his lifetime was well managed.

CONNECTICUT FORESTRY ASSOCIATION

At the annual meeting of the Connecticut Forestry Association in 1905, Dr. Edward H. Jenkins was elected president. A publication committee was made up of Dr. Jenkins, Miss Winslow and Austin F. Hawes. At this time the annual dues were $1.00.

At the meeting on May 5, 1906 Professor Henry S. Craves was elected president. The vice presidents were Professor Henry W. Farnum of Yale, Mr. Everett L. Geer of Hartford and Dr. E.H. Jenkins. Mr. Frank H. Stadtmueller of Hartford became Secretary and from this time the minutes of the Association are complete. An Advisory Board was created consisting of Mrs. Jessie B. Gerard of South Norwalk, Mr. George D. Seymour of New Haven and Austin F. Haves.

Figure 11. (Connecticut State Library collection)

The Fourth Annual Bulletin of the Association published in April 1906 summarized the work of the Experiment Station in Forestry; reported on the two state forests acquired; outlined the new state forest fire system; described the courses in the Yale Forest School; and told of the work of the Federation of Women's Clubs for forestry. Mrs. Gerard of South Norwalk was for many years chairman of the Forestry Committee of the Federation.

An open meeting of January

30, 1907 was held at the Steinert Atheneum, New Haven, and the proceedings were printed as publication No. 5. Professor Graves continued as president through 1909.(P50) At this meeting Governor Rollin S. Woodruff of New Haven, who had shown considerable interest in forestry, gave an address in which he advocated demonstration forests.

Another address, with his accustomed witty introduction, was made by President Arthur Hadley of Yale. In it he referred to his observations of European forestry and added: "*Forestry has this in it, that it gives even more to the future than it does to the present. It is typical of what we are all anxious to do; typical of the kind of life that looks more to what we shall leave for our children in the way of resources than what we shall use up and enjoy ourselves.*"

Professor Henry S. Craves spoke on "A Forest Policy for New England" in which he referred to the movement then starting for the acquisition of national forests in the East, particularly in New Hampshire. In this connection he added that our problems in Connecticut are local. In character, federal reserves here are not needed; but he advocated state-owned forests up to 75,000 or 100,000 acres.

Dr. Jenkins reviewed the work of the Experiment Station. As introduction to my paper, I [Hawes] quoted from the Fourth Annual Report of the Society for the Protection of New Hampshire Forests: ''*Connecticut has led not only Massachusetts and Rhode Island in securing the services of a technically trained state forester, but also entire New England in her admirable fire law. Connecticut was the first New England State to establish a state forest reserve.*" In speaking of the fire law I [Hawes] mentioned that most of the fires occur in April and May and that the fire warden of Killingly proposes an amendment to the law requiring a permit from a fire warden for a brush fire in those months.

Mr. Theodore L. Bristol, President of the Ansonia Water Company, spoke on "Some Practical Results of Forestry in Connecticut".(P51) Some of the prices mentioned in this excellent paper are of interest for comparison with present prices. The Company sold four foot wood at prices from $3.50 to $5.00 a cord delivered. He mentioned also a copper refinery which bought green poles 25 feet long and 6 inches through at the butt. The price paid for these poles was 25 cents. Mr. Bristol said that a 40-foot chestnut pole was worth $5.00 delivered, but after experimenting he had come to the conclusion that it was more profitable to saw the pole into lumber. Other valuable information was contained in this paper.

Professor R.C. Hawley presented the forest taxation problem which was already being discussed as it has been at forestry meetings ever since.

Professor Herbert E. Gregory of the Geology Department at Yale gave an illuminating paper on soils in which he said: "*In this district lime seems to be the controlling factor, and trees are affected in two ways, first in their distribution, and secondly the character of their growth.*"

This report contained a list of the 99 members which the Association had in l907. Of these seven were Life Members, as follows; Professor Henry Ferguson, St. Paul's School, Concord, N.H.; Rev. John T. Huntington, Hartford; Mrs. Charlotte E. Huntington, Hartford; Mrs. George C. Perkins, Hartford; Mr. Robert Scoville, Chapinville; Col. C.S. Wadsworth, Middletown; and Mrs. Antoinette Wood, Simsbury. (Aunt of Gifford Pinchot).

At the annual meeting on May 18, 1907, the Forestry Association inaugurated a series of field meetings, which have been continued up to the present time, and have done much to bind the members together in their common cause.(P52) This first meeting was in the Portland State Forest, where the caretaker, Del Reeves, acted as guide. This history would be incomplete without a word about this typical old Connecticut Yankee. He and his maiden sister lived in their ancestral farmhouse on the edge of forest. He was a tall, slim man with a grey mustache and friendly personality, who loved the woods in which he had grown up and could recount anecdotes about every section under such names as "the Aunt Esther lot" and the "Wilcox Gate lot". Along with his potatoes and berries and asparagus he supplemented his life by trapping in the fall and by furnishing rattlesnake oil to old-timers who considered that the best remedy for rheumatism. He was paid a retainer of $50.00 a year and a daily rate for time he spent on state work. His sister, a tall, thin spinster, had made home cooking her career and was a success in it. Reeves cooked in milk. Her pies were equally worthy of encomium. A few years later, Spring and Filley had enjoyed a meal here, which they thought was squirrel, when Del Reeves took delight in informing them they had been eating skunk.

Figure 12. J.C. Del Reeves inspecting trees (CAES archives)

MR. AND MRS. GEORGE TOWNE of Stafford Springs celebrated their 50th wedding anniversary Thanksgiving Day at the home of their son George R. Towne of Stafford Springs. © Rockhill

Figure 13. (Connecticut State Library collection)

Another character worthy of mention in connection with this forest "Peg-Leg Goodrich". With a staff compass for cane, he could go through the woods on his wooden leg and locate corners as fast as any other man with two legs.

Subsequent field meetings of the Association were held at the Rainbow Plantations in May 1908, and at the Union State Forest in September of that year. The caretaker at Rainbow, Judson Leonard, was a wiry little man with red cheeks and gray sideburns. He was very conscientious in his work, and I fear worked too hard for his years especially at forest fires.(P53) At Union another typical Yankee was caretaker, George Towne, slow in speech, but accurate in his surveys and as conscientious as any man who ever ran a transit.

When George Myers, a wealthy graduate of the Yale Forest School, asked me the best place in Connecticut to buy cheap land about this time I advised him to go to Union and get in touch with George Towne. This was the beginning of the Yale

Forest. Myers accumulated a large tract with considerable timber and for some time employed Towne to manage it. Unfortunately he did not have sufficient confidence in his own profession to employ a forester when Towne resigned, and the forest was wrecked by an unscrupulous logger.

On September 2, 1908 the Association held a "Forestry Institute", as it was called, in the town hall at Winsted where Mr. Ellicott D. Curtis of Norwalk discussed "The Practice of Forestry by a Connecticut Land Owner"; Mr. Elliott B. Bronson spoke on the "Connecticut Forest Fire Law"; Mr. E.M.C. Eddy, Forest Fire Warden for Simsbury, spoke on "Cooperation of a Town and Railroad for Fire Protection"; and the State Forester spoke on "State Forests".

In Mr. Eddy's paper he described the cooperation he had secured from the Central New England Railroad. A patrolman was employed at $10.50 a week in the spring fire season, half of the expense being borne by the Railroad Company; one-seventh by the town and the rest by the landowners. In the six weeks the patrolman was on duty, he put out thirty-five fires, any one of which might have done considerable damage. He mentioned a fire a few years previous which had burned three days and caused damage for which the Railroad Company received claims of $10,000. In the spring of 1908 a small nursery was started in Union under the care of Mr. Towne.[(P54)] White pine seed from the Adirondacks was sown, resulting in 350,000 seedlings.

SIMSBURY FOREST ACQUIRED

Also in the spring of 1908, partly on the strength of Mr. Eddy's success, the third state forest was started in Simsbury. This land had been so repeatedly burned over by the Central New England Railroad which passed through it, the owners considered it valueless and sold it to the State for $1.00 an acre. Mrs. Antoinette Wood, the owner of the old Eno home in Simsbury, and aunt of Gifford Pinchot, donated $500 toward the improvement of the land. Fire lines were constructed along the track and a patrol maintained during fire weather. The first planting in 1908 was with 10,000 white pines from North Carolina and 10,000 Scotch pine from the Rainbow nursery. Practically all these trees were killed by subsequent fires.

As a result of these demonstrations 45,000 trees were planted by private owners in 1908 in Simsbury; and in Union two wealthy men: George Myers and Mr. Wells had purchased nearly 3000 acres and begun forestry operations.

On February 12, 1909, the Forestry Association held a Forestry Institute at Ansonia in cooperation with the Women's Clubs of Ansonia, Derby and Shelton. The following papers were delivered: "American Forestry" by Professor Henry S. Graves and "Forestry in Connecticut" by Austin F. Hawes

NATIONAL FORESTRY

During this period several events outside the state influenced the progress of forestry.

On May 13, 1908, President Theodore Roosevelt's Conference of Governors opened in Washington to consider what Pinchot and the President had newly named "Conservation".[(P55)] This was not only the first time the concept of Conservation was brought home to the people, but it was the first time that the Governors of all the states were brought together for any purpose. President Roosevelt himself made the opening address. Other speakers included Andrew Carnegie, on the subject of "Iron"; John Mitchell on "Coal"; John Haves Hammond, Elihu Root, then Secretary of State, and several Governors. Later sessions dealt with other aspects of

Conservation, "*This Conference put Conversation in a firm place in the knowledge and thinking of the people. From that moment it became an inseparable part of the national policy of the United States*[10].

This was followed in November 1908 by a Conference held in Boston, called by Governor Curtis Guild, for several years president of the American Forestry Association and later Ambassador to Russia. For two days this New England Conservation Congress dealt with such problems of mutual interest as: forestry, fruit growing, good roads, the shell fish industries, etc. There were present the governors and governors-elect of the various New England states, the members of Congress from New England, and a large number of experts and delegates[11].

These two conferences did much to crystallize public interest in forestry so that progress in all states gained momentum from this time.

SHAKER PINES EXPERIMENT

Mention has been made of the reforestation work carried on by the Shaker Community of Enfield in the 1870s.(P56) In 1908, the Agricultural Experiment Station purchased four acres of this white pine stand from the Shaker Colony, located on a slope not far from the buildings. This stand, which was probably established in 1878, had 2400 living and dead stems per acre when acquired. The method of afforestation which the Shakers had employed was to sow a plowed and harrowed field with pine seed and buckwheat, harvesting the latter and allowing the pines to mature. The seed undoubtedly came from the Shaker Colony in New Hampshire and contained a small amount of red pine. This method evidently resulted in an extremely dense stand. The area was divided into four plots in 1909. One was retained as a check plot and experiments with varying degrees of thinning were made in the other three during the next twenty years. The experiment was not a success in a constructive sense, but did prove that white pine stands which had stagnated too long would not respond to thinning. Had the area been acquired a decade earlier, it might have given very different results. The 1938 hurricane completely destroyed the stand, and the land was sold to the State Prison Farm 1940.

Figure 14. G.P. Clinton, E.M. Stoddard, G. Graham circa 1915 (CAES archives)

CHESTNUT BARK DISEASE

A very devastating forest disease, especially in the east, is the Chestnut Bark Disease, *Endothia parasitica*. [The disease is now called Chestnut Blight, and the pathogen is called *Cryphonectria parasitica*] While we were struggling in 1905 to get our forest fire bill through

[10] "Breaking New Ground" by Gifford Pinchot
[11] "Forestry in New England" by Hawley & Hawes, 1912

the General Assembly there was discovered in New York this new disease, which was soon to wipe out our most important forest tree. It had evidently been brought into New York on some Asiatic chestnuts. It was little noticed in Connecticut before 1907. Like the Dutch Elm Disease, later it invaded Fairfield County. At first Dr. G.P. Clinton, the Botanist of the Agricultural Experiment Station and an authority on pathology, did not take too serious a view of this new disease. As late as 1908 he wrote that although it was a virulent disease, he did not believe it would have caused so much damage had it not been powerfully assisted by some other cause.(P57) For this assistance he was inclined to credit the unusual weather conditions which had existed in Connecticut since l902. Winter injury had been especially noticeable following the winter of 1903-04. The severe drought of 1907 might also have contributed to the havoc wrought by the disease. Notwithstanding Dr. Clinton's early optimism, the disease continued to spread. By 1911 practically all the chestnuts of Fairfield County were dead, and infected trees had been found throughout the natural range of the chestnut in New England. North of Connecticut no great amount of timber had been killed, and it was still hoped that conditions there might check its spread to the north. This, however, was not to be. The disease spread almost like fire, and by 1915 it was evident that the species was doomed. To the south where the percentage of tannic acid in the wood was greater, the chestnut withstood the attacks of the disease somewhat longer, and even as late as 1920 there were considerable stands of live chestnut in the Southern Appalachians. But in Connecticut there was scarcely a sizeable tree alive after 1918.

Too long a time had elapsed for anyone to recall that in 1844 the mulberry orchards, which flourished in Mansfield and in other sections of the state, had been wiped out by blight in that year. The "silk bubble" burst, and from that time the silk industry which had been established in Mansfield and Manchester had to reply upon imported raw silk.

THE ASSOCIATION OF EASTERN FORESTERS

It is rather interesting to reflect that "The Association of Eastern Foresters", forerunner of the Association of State Foresters, had its inception at the Rainbow Plantations.(P58) In the fall of 1907[12] Gaskill, with whom I had been associated in the Bureau of Forestry, inspected these plantations with me. Gaskill was at that time Forester of the Forest Park Reservation Commission of New Jersey and later became State Forester. During the day we discussed the value of such field trips for a group of state foresters. As a result, a preliminary meeting was held at Luchow's Restaurant in New York City on January 11, 1908. Those present were Gaskill, Pettis of New York, Chapman of the Yale Forest School, Wirt of Pennsylvania, Besley of Maryland, and Hawes. An informal organization was effected with Gaskill as secretary. The first outbreak of the Blister Rust was discovered on white pine in New York in the spring of 1909, and a conference of foresters and pathologists was held early that summer in the office of the New York Fish and Game Commission in New York to consider this disease. Another meeting was held there for a similar purpose on November 11, 1910 at which the Association of Eastern Foresters was organized to include State Forest officials and instructors of forestry. The territory covered included New England, New York, Pennsylvania, New Jersey, Delaware and Maryland.

[12] A Chapter in American Forestry History, The Association of Eastern Foresters by Austin F. Hawes, President of Association of State Foresters. Journal of Forestry 1927.

Figure 15. Association of Eastern Foresters circa 1910. (Connecticut State Library collection)

Figure 16. Group photo of eastern State Foresters in 1911. (Connecticut State Library collection)

At the meeting held in Washington, D.C. January 12, 1911, a constitution was ratified. Interesting field meetings were held by this Association in the next few years in New York, Massachusetts, New Jersey, New Hampshire, Connecticut, Pennsylvania, Maine, Asheville, N.C. and at Grand Mere, Canada.(P59) The final meeting was held at Harrisburg, Pa., December 8-9, 1920 at which the Association of State Foresters was organized to include the State Forest officials of all states; and the Association of Eastern Foresters ceased to exist. By this time the various sections of the Society of American Foresters were holding field meetings somewhat along the same line as those held by this organization.

FORESTRY TEACHING AT THE CONNECTICUT AGRICULTURAL COLLEGE

Evidently the founding of the Cornell and Yale Forest Schools reverberated to the remote parts of Connecticut, and it is no exaggeration to say that Storrs was remote at this time. It was also a very small institution, devoted practically entirely to agriculture. At a meeting of the State Board of Agriculture in December 1900, Professor Ballou announced that the trustees planned to give a course in forestry. In l902-03 Edward Albert White, B.S., Professor of Botany, Forestry, and Landscape Architecture, offered a three hour course in forestry in the winter term for fourth year and short course students. In 1903-05 the aim was more pretentious, for Professor White gave one course in General Forestry, and a complete two year course including Silviculture, Management, Improvement, etc.

From 1906 to 1909 I gave the Forestry instruction at the College. It consisted in one course in the last half of the fall term: 5 hours a week in classroom and 4 hours “laboratory”, which meant field work. This was largely in a woodlot just back of the gymnasium, which has now entirely disappeared. The forest contained splendid specimens of tulip and oak.

The method of reaching Storrs from New Haven was similar to that of reaching Union: N.Y. N.H. & H. R.R.[13] to Willimantic; Central Vermont Railroad to Mansfield Station, and stage to the College.(P60)

[13] New York, New Haven and Hartford Railroad [eds.]

STATE BOARD OF AGRICULTURE

At its winter meeting in Willimantic in 1906, the Board of Agriculture was addressed by Dr. Herbert A. Smith on "The Work of the Forest Service for Farmers", It was a rather difficult assignment, for the Forest Service had concentrated on the National Forests, and had done nothing for farmers up to this time. Mr. Smith, a classmate of Pinchot's at Yale, had been taken into the Bureau of Forestry to edit manuscripts and become known among foresters as Dolly Smith. In his opening remarks he explained that the National Forests then amounted to one hundred million acres. He referred to the growing scarcity of railroad ties and advised farmers to plant their abandoned land and to make selective cuttings in their woodlots. He referred to the exhibit which the State Forester had provided: a series of photographs made by W.O. Filley to illustrate increased growth of chestnut after thinning. Years later I had the pleasure of taking Mr. Smith to some of our state forests and he was delighted to see forestry practiced in the woods. All his life he had been writing about it but had rarely seen it.

For the first time the Gypsy Moth was considered by Dr. W.E. Britton, State Entomologist, in the report of 1907. He reviewed its early history, how it was brought into eastern Massachusetts by French astronomer, a Mr. L. Trouvelot, for possible silk culture about 1869; how it escaped and Mr. Trouvelot warned the public of the danger and how it had spread during twenty years and became a serious pest in eastern Massachusetts. That state first began fighting the insect in 1890 and continued until 1900 when it refused to make further appropriations and the work was discontinued.(P61) This was most unfortunate, for at that time the insect was well under control. For five years it was allowed to spread until it covered 2224 square miles instead of 359 square miles and was in New Hampshire and Maine along the coast. There were also infestations near Providence, R.I. and Stonington, Conn. Under Governor Douglas a new appropriation was secured in 1905 and the work started again. Up to the time of writing Massachusetts had spent $1,000,000 for Mr. Trouvelot's little experiment. The name "gypsy" had been conferred on the insect in England. On the Continent it existed from Stockholm to Algiers and eastward into Asia; having been found in China, Japan and Ceylon. The western and southern portions of Europe had suffered most. Much damage had been done to trees in Brussels in 1858, and the oaks in Italy had been badly defoliated in 1871. Other places in the Crimea and in Germany and Austria had suffered from it.

It was first found in Connecticut on July 30, 1905 in Stonington. To the time of writing [the 1907 report] Dr. Britton had spent $1700 in scouting and destroying egg masses. Other sections of New London and Windham Counties were also scouted.

Whether Gifford Pinchot ever refused an invitation to speak I do not know, but I know that he often accepted and then, at the last minute sent a substitute. On such occasion was the meeting of the Board of Agriculture in Hartford in December 1907 when Mr. H.H. Chapman took his place; speaking on "The Opportunity of the State in Forestry". He said that the rising price of lumber is the most powerful argument in the education of the people to the need of true forestry. "*Forestry has three branches: aesthetic forestry, protective forestry and commercial forestry. The professional forester is almost exclusively interested in the protective and commercial features, while too often the public interest is exclusively devoted to the aesthetic side.*"(P62) He discussed at some length Protective forestry and said that careful investigation has failed to prove that rainfall is increased by forests. The effect of the forest is found in its influence on the water after it reaches the ground. For purposes of protection and of stream regulation, forests are important chiefly in mountainous regions. The movement for the establishment of national

forests in the Appalachians and White Mountains receives its strongest arguments from the topography of those regions and the effect of forest destruction on the flow of streams. In states like Connecticut and Massachusetts, protection is not the argument which justifies forestry. It is the great and growing demand for timber, which is urging forestry to the front.

Chapman was followed by A.F. Hawes, State Forester, who first gave some information about recent forest fires. The towns which had had most fires were Essex, 13; Winchester, l4; Simsbury, 17. The largest fire of the year burned 2500 acres in Southington. “When electricity has more generally taken the place of steam, forest fires will he greatly reduced.” “The first conviction was made in Stafford in the spring of l907, when a man was fined $7.00 and costs. This year the warden of Stamford arrested the foreman of a sawmill who had allowed a fire to escape. The man was fined $5.00 and severely reprimanded by the judge. In Bristol last spring three unruly boys were finally captured, who had set fires, and were committed to the Meriden Reform School. All these cases have been advertised in the papers.” In the case of a large fire in Danbury, the warden succeeded in getting the damaged parties reimbursed to the extent of $1,000.

[HAWES'] RESIGNATION APRIL 1, 1909

During the winter of 1908-09 I had been in correspondence with Professor L, R. Jones of the University of Vermont, and Father of Forestry in that state.[(P63)] Later he came to Connecticut for a conference and I decided to accept the newly created position of State Forester of Vermont. Various reasons influenced me to take this decision. Vermont is a larger forest state and I felt, and still believe, that the future of the State is more dependent upon forestry than Connecticut with its varied manufacturing and financial interests. Then, too, Vermont had a larger percentage of softwoods - pine, spruce, hemlock and fir, which made the practice of silviculture more interesting. Lastly it was my mother’s home state and throughout my boyhood had been the Elysian fields to which I had escaped from school every summer. So I resigned my position in Connecticut not without regret, especially because of my attachment for Dr. Jenkins, and started my duties in Vermont on April 1, 1909. Because of the Chestnut Bark Disease, I left Connecticut forests in still worse condition than I had found then, but I had established the machinery by which they could be protected from fire and a ground work had been laid for the practice of forestry.

CHAPTER IV LOOKOUT TOWERS MAKE THEIR APPEARANCE

SAMUEL SPRING, FOURTH STATE FORESTER

Figure 17. Samuel Spring, fourth Station Forester 1909-1912 (CAES archives).

(P64)Walter O. Filley had worked at various times as Student Assistant, and upon my decision to go to Vermont, he became my assistant for a short time in March 1909. From April 1 to October 1, 1909, he was Acting Forester of the Experiment Station and State Forester.

On October 1, 1909, Samuel N. Spring, Yale Forest School 1903, who had been Professor of Forestry at the University of Maine, became State Forester, and Filley acted as his assistant throughout his term, which lasted until October 1, 1912.

It was a great step forward for the State Forester to have an assistant who could iron out many of the problems of the fire warden service. Filley visited many of these wardens, advising them about the law and giving useful hints on fire fighting.

List of Town Fire Wardens who served from 1906 to 1912:

Andover, Edwin H. Cook; Bloomfield, Melville H. Barnard, Bozrah, John H. Miner; Branford, Chester M. Pram; Burlington, A.N. Barnes; Canaan, M.C. Dean; Canterbury, A. Hale Bennett; Clinton, Holcomb N. Jones; East Lyme, J.V. Beckwith; Haddam, Ephraim P. Arnold; North Haven, Lawrence Bruce; Oxford, Frederick W. Hubbell; Pomfret, Seymour Peal; Portland, Joseph P. Synnott; Suffield, Ernest N. Austin; Vernon, Charles W. Bradley; Voluntown, Walter C. Tanner; Woodstock, Charles M. Perrin.

Of the 83 wardens appointed by January 1, 1906, only 18 served in 1912 showing large turnover doubtless due to the fact that many selectmen served at first, but later appointed others in their place.

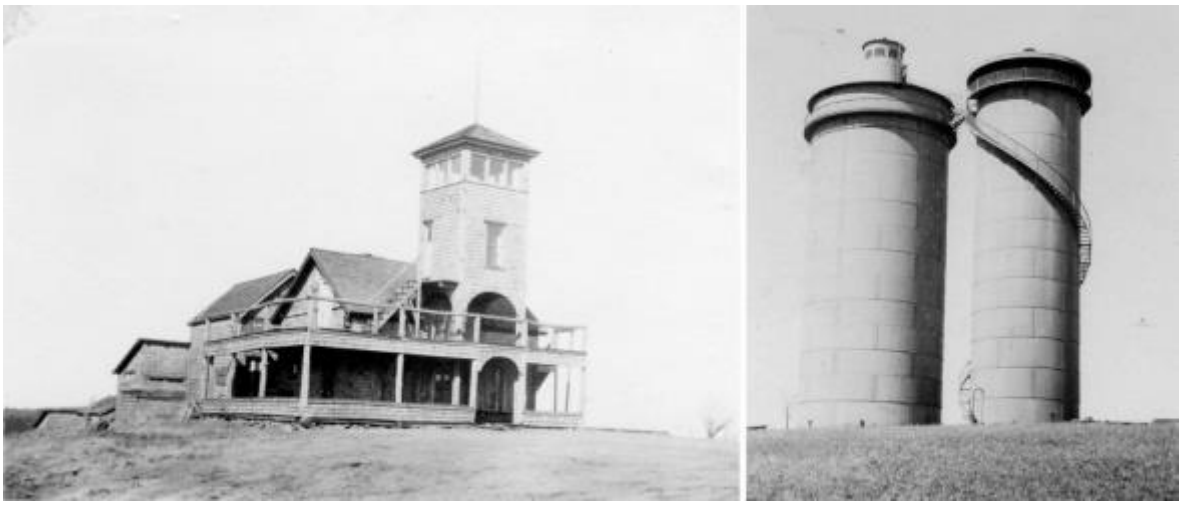

Figure 18. Early Connecticut fire lookout towers at Mrs. Lawson's cottage in Union (l) and the University of Connecticut (r) (Connecticut State Library collection)

FIRE LOOKOUT TOWERS

Forest fire lookout towers were just coming into the vogue at this time, and in spite of the lack of money, Mr. Spring established three stations, although they were not towers in the modern sense.(P65) Dr. Dennis of Norfolk had built an elaborate bungalow on top of the hill, which bears his name, and there he entertained many friends including President William Howard Taft. In order to secure a view in all directions from one point, he built a small platform on top of the bungalow. This has been used as a lookout continuously from that time. The first observer was Mr. Crocker of Norfolk.

Mrs. Bryce, a woman with a broad Scotch accent, had a bungalow on South Mountain. overlooking the valley in which Bristol is situated. Arrangements were made to have her look out for fires.

Mrs. Dedie Lawson had a cottage on the summit of Mt. Ochepetuck in Union where she spent several months every year because of asthma. Mr. Spring had a short tower erected over the roof of this cottage, and Mrs. Lawson served as observer for many years. She was the wife of a missionary, and they spent several years in India. Rev. Mr. Lawson was of an old Union family which owned one of the last stands of virgin pines. Some of these trees were very large. Unfortunately, like the Colebrook virgin forest, which was larger, and Lawson forest also was cut off. A little later an arrangement was made with Mr. James Cartwright to watch for fires from Sunset Hill in Hampton.

Figure 19. Mrs. Bryce was an early fire lookout in Bristol. (Connecticut State Library collection)

Mr. Spring also revised the fire warden report and with Filley's assistance secured more complete reporting of fires than had previously been possible. Consequently, the reports since 1910 are fairly complete. The reports for the three years 1910-12 inclusive are here summarized:

YEAR	Number of Fires	Area Burned Acres	Damage
1910	834	47,000	$190,000
1911	978	65,000	$295,000
1912	526	15,000	$67,000

CORNWALL STATE FOREST

Mr. Charles Gold of Cornwall had continued the interest which his father had taken in forestry.(P66) He was a tall, handsome man with a gray beard and genial manner and lived on his ancestral acres on Cream Hill. Through him Mr. Spring became interested in the region for the establishment of a fourth state forest. He and Filley purchased partly from Mr. Gold and partly from others a tract of 1282 acres. This so-called Cornwall State Forest was partly in Canaan, but mostly in Cornwall in the section north and east of Cream Hill. It had been repeatedly cut-over for charcoal for the iron industry, and some of it had been burned. The forest growth was largely young poplar, gray and paper birch and white pine. The General Assembly of 1909 appropriated $5,000 for the purchase of state forests but the price of land had advanced so much this could not be spent. In 1911 the maximum price that could be paid for land was increased from$4.00 to $8.00 an acre.

NORTHEASTERN FORESTRY COMPANY

In 1907 Professor R.C. Hawley and W.O. Filley had started a small nursery, but when Filley became Acting Forester he sold his interest to Professor Hawley.

In 1909 Clifford Pettis of the New York Conservation Department, Professor J.W. Toumey, Professor L.R. Jones of the University of Vermont, Professor Hawley, and Mr. Weber organized the Northeastern Forestry Company and established a nursery near New Haven which was later moved to Cheshire. When Mr. Pettis became State Forester of New York he sold out his interest. This became the largest nursery in the state for the production of forest seedlings, although it specialized more and more in ornamental evergreens.

CONNECTICUT FORESTRY ASSOCIATION

Professor H. Graves continued as President of the Connecticut Forestry Association through 1909, when he was succeeded by Mr. Theodore Bristol of Ansonia, who served three years through 1912. Mr. Frank Stadtmueller was Secretary seven years, 1906 to 1913. In 1910 the Association had 110 members.(P67)

In May 1909 the field meeting of the Association was held at Reservoir No. 1 of the Hartford Water Board, and in October of the same year in the plantations of Dr. Arthur Mathews in Woodstock. Dr. Mathewson was one of the early enthusiasts for forest planting. He had a cottage on the east side of a small lake and had planted a considerable area around it with white pines. These had grown so tall and so dense, his cottage at this time was in the midst of an

impenetrable thicket. A small area had also been planted to European larch. These plantations continued to grow, although badly in need of thinning, until they were entirely destroyed by the hurricane of 1938.

In May 1910 the field meeting was held with the Ansonia Forest Products Company at Zoar Bridge in Oxford. This was a Company which Mr. Bristol of Ansonia had organized to make forestry operations on private tracts. At one time Mr. Victor Isola, a graduate of the Yale Forest School, was manager for it.

In May 1911 the Association inspected the plantations of the Middletown Water Board which had been started by Mulford.

In May l912 the meeting was at Maltby Lakes of the New Haven Water Company. This particular tract had been used by Professor James Toumey more or less as a training ground in silviculture for his students. By this time there were several well established plantations made by the first classes at the school.

In September 1912 the Lawson pines of Union were inspected. This tract has already been mentioned.(P68) The timber was cut soon after this meeting.

Both Spring and Filley continued the practice of advising private forest owners; distributing nursery stock from the Rainbow nursery; and giving illustrated talks on forestry.

Spring inaugurated a very complete system of bookkeeping to account for all expenditures on the various state forests and the receipts therefrom. This system, with certain modifications, remained in use for at least thirty years.

THE WEEKS LAW

For nearly a decade there had been a movement for the acquisition of national forests in the east. This was sponsored by two groups: the Society for the Protection of the New Hampshire Forests under the able management of its forester, Mr. Philip Ayres; and an organization striving: for a large national forest in the Southern Appalachians. These two groups joined forces and introduced bill after bill in Congress only to be defeated through the opposition of the Speaker of the House, “Uncle Joe Cannon”. To meet certain Constitutional questions it was reworded to provide for the purchase of forests for the protection of navigable waterways. In order to secure the support of states which would not otherwise benefit from it, Section 2 was added which provided for a system of fire protection on the watersheds of navigable streams. This law, known as the “Weeks Bill’ after Senator Weeks of Massachusetts, at first provided only $200,000 for cooperation with the various states for the protection of forests on the watersheds of navigable streams. The Secretary of Agriculture limited the amount which could be spent in any one state for the fiscal year beginning July 1, 1911 to $10,000.(P69) The Forest Service assigned Mr. Girvin Peters to administer this section. Peters was a classmate of Spring’s and mine [Hawes] at the Yale School of Forestry. He was a man of very pleasing personality, eminently fair in his dealings with the state foresters, and was everywhere popular.

At first patrolmen, lookout observers and others employed under this Section were Federal employees, but later money was allotted direct to the states and has subsequently been managed by them. Eventually the law was broadened to cover the protection of all forest land. The first year only $1,000 was allotted to Connecticut and this was not spent since the fall season was not dry.

By 1911 the Connecticut law had been amended to allow the payment of thirty-five cents an hour to town fire wardens instead of twenty-five cents. Also the fire permit law had been passed.

FOREST TAX COMMISSION

The General Assembly of 1911 appointed a Commission consisting of the State Tax Commissioner, the State Forester and three others to investigate the taxation of woodlands, and report a tax bill to the next General Assembly. The only special law then in effect was the one which exempted forest plantations from Taxation for a period of twenty years. Since this was not limited to land of low value, it was bound to be taken advantage of. An owner of valuable land in West Hartford on the corner of Steele Road and Asylum Avenue applied for such an exemption. This resulted in a change of the law.

Spring carried on the instruction in forestry at Storrs from 1910 to 1912, inclusive, and was followed by Filley who gave the course in 1913-14.

GRAVES BECAME CHIEF FORESTER OF U.S.

During the period I have been covering important events were taking place in Washington, which history knows as the Ballinger-Pinchot controversy.(P70) It is not pertinent to this Connecticut Forestry story to go into the details of this controversy which are much involved. For our purposes it is sufficient to relate that on January 7, 1910[14] President Taft fired Pinchot as Chief Forester. On January 11 the President conferred with Dean Henry S. Graves and gave him the appointment. When Graves resigned from the Yale Forest School, Professor James W. Toumey became Dean. Toumey was a tall, handsome man tanned by the sun of Arizona. He had a delightful personality which endeared him to his students, and as he was never in a hurry, he would talk to a visitor with enthusiasm about his work.

INFLUENCE OF PLANTATIONS ON OWNERS

That forest plantations made by private owners often had an indirect value which rebounded to the benefit of the State is well illustrated by some of the plantations made in this period. In 1909 Mr. Albert Wells of Southbridge, Mass. planted on his tract in Union 35,000 white pines and 1000 each of Norway spruce and European larch. His foreman, Mr. H.R. Howard, also planted 5000 pines on his own land. This became the foundation of a large forest which was later purchased by the State.

Mr. Harris Whittemore added to his previous plantings by putting in 100,000 3-year white pines.(P71) Partly from his interest in watching his own plantations he became a helpful member of the Park and Forest Commission and donated a valuable forest to the State.

Mr. George Myers planted 20,000 white pine on his land in Union which he later gave to the Yale Forest School.

Mr. Fred Chase planted 5000 white pines on his land in Woodbury and became an enthusiastic member and director of the Forest and Park Association and gave a valuable tract to

[14] "Breaking New Ground" by Gifford Pinchot

the State in the Mattatuck State Forest.

In 1910 Mr. Whittemore planted 50,000 more white pine and 3,000 Norway spruce, and Mr. Wells planted 250,000 two year seedlings that had been raised in the Union state nursery.

In 1911 Mr. Alain White of Whitehall in Litchfield began a large planting program with 35,000 white pine. He later became so much interested that he donated valuable tracts to the State for parks and one forest.

Messrs. Whittemore and Myers continued the plantations previously started. Mr. Fayette L. Wright of Pomfret planted 10,000 3-year white pine and became so much interested he was afterwards a valuable member of the State Park and Forest Commission. It was probably through selling 5,000 white pines to Dr. Dennis of Norfolk that the friendly relations were established resulting in the lookout tower, and the valuable bequest of his property to that state as a park.

In 1912 Mr. Whittemore extended his forest by planting an additional 50,000 white pine; and Mr. Curtis Veeder planted 15,000 white pine on his property which he bequeathed to the State as Penwood Park.

I [Hawes] have mentioned only a few of the plantations which may be said to have influenced their owners to more important efforts.[(P72)] There were, of course, many other smaller plantings as may be judged from the following summary of the distribution of nursery stock.

Year	Trees Distributed
1908	300,000
1909	300,000
1910	463,000
1911	302,000
1912	672,000
Total	2,037,000

STATE NURSERY DISCOUNTED

For a time the Experiment Station had maintained a nursery at Centerville. This was discontinued in 1912. After 1913 all state nurseries were discontinued, and Mr. Filley made an arrangement with the Northeastern Forestry Company for them to fill the orders.

WHITE PINE BLISTER RUST

In April 1909 Mr. F.A. Metzger, a forester employed by Mr. C.F. Street to plant 10,000 3-year white pine from Germany on his land in Wilton, found 50 to 100 trees infected with Blister Rust and reported it to the Experiment Station. Dr. G.P. Clinton, the Botanist, was absent in Japan at the time. It was also found in other New England states and in New York. In the latter state it had undoubtedly been introduced much earlier. Most of the larger plantations were examined in 1909 by the Botany and Forestry Departments of the Station. The Blister Rust was found in small amounts in several. About 645,000 of the total importations of 740,000 trees imported by local nurseries were destroyed. This was the last year that white pine was imported. The disease was first found on *Ribes* [currants, gooseberries] in East Meriden in October 1912. The disease had been known in Europe since 1856.

CHAPTER V. STATE PARKS ARE BORN

WALTER FILLEY, FIFTH STATE FORESTER

Figure 20. Walter Filley was the fifth Station Forester, 1912-1945 (CAES archives)

(P73)On October 1, 1912 Walter Owen Filley became Station and State Forester when Samuel Spring[15], resigned to become a professor at the Cornell Forest School. Filley had the advantage of belonging to an old Connecticut family and of devoting his entire professional life to his state. Through his associates among the Veterans of the Spanish War and his church affiliations he built up a large acquaintance throughout the state.

The idea of having an assistant forester for the Experiment Station, had become established, and Mr. Albert E. Moss, a graduate of the Yale Forest School, served in this capacity from 1912 to 1919. One of his assignments during this period was making a contour map of the Cornwall State Forest. Most of this period he also did part time teaching of Forestry at the Connecticut Agricultural College, although Filley was a lecturer there in 1913-14. In 1919 Moss became Professor of Forestry. During 1913 and 1914 Mr. Moss completed the forest survey of the State which had been begun by Hawes and Hawley. The results were published in 1915 as a Station Report "A Forest Survey of Connecticut". In the same year he made an experimental survey on a much more intensive basis for the town of Redding. The purpose was to determine the cost of a similar survey for the entire state. This was also published in the 1915 Report of the Station: "A Forest Survey of the Town of Redding, Connecticut" by Albert E. Moss. This work was suspended during World War I and was not resumed.(P74)

During Mr. Spring's term of office, cooperative study was made with the U.S. Forest Service of Second Growth Hardwoods. The work was done by Mr. E.H. Frothingham in 1912 and later published as Bulletin No. 96, U.S. Forest Service, USDA, under the title: "Second Growth Hardwoods in Connecticut".

Another study which had been initiated by Mr. Spring was a cooperative study with the U.S. Forest Service of the wood-using industries of the state. This was conducted by Mr. Albert H. Pierson and published in 1913 as Station Bulletin No. 174: "Wood Using Industries of Connecticut". It is interesting to note that as of 1910 Connecticut sawmills produced 223 million board feet of lumber.

RAINBOW PLANTATIONS

By this time the experimental plantations at Lockwood Field [Windsor] had been completed and although they continued to be an object of study until destroyed by the hurricane of 1938, it may be appropriate to summarize the results here. I quote from a later report by Mr. Henry Hicock: "*Seventeen deciduous and sixteen evergreen species, both native and exotic, were used in the trials. For the most part the site was too poor to support broadleaf trees, which either*

[15] Samuel Spring died in Georgia February 4, 1952.

failed completely or made exceedingly poor growth. The final stands were consequently entirely coniferous. Of the conifers only one, Japanese black pine, failed completely. Spruces and firs could not establish in the open. If kept under cover for five to ten years, they were subsequently able to maintain themselves although, with the exception of Norway spruce, growth was quite slow. The latter species, once it was well rooted, equaled or exceeded white pine in height growth.[(P75)] *Japanese red pine and western yellow pine were just able to maintain themselves. European larch and Douglas fir shoved an extremely variable rate of growth. Some individuals remained in a dwarfed condition while others grew very well. Austrian and Corsican pines grew quite slowly but uniformly. The four species which did best and the only ones which are considered satisfactory for the site are Scotch, red, white and jack pines, Scotch pine far outstripped the other three in both diameter and height growth. On the poorest sites red pine showed up a little better than white or jack pine. The last named was a prolific seeder even at an early age.*" Mr. Filley issued a report on this plantation in 1912 and later reports were written by Mr. Hicock in 1924 and 1942.

EASTFORD STATE FOREST

During the period of his administration Mr. Filley made some additions to the existing state forests and acquired a handsome nucleus toward a fifth, called the Eastford State Forest [now Natchaug State Forest], with an area of approximately 2200 acres. By July 1921 the total area of the five state forests was 4452 acres.

ASSOCIATION OF EASTERN FORESTERS

Probably the most enjoyable event in the life of the Association of Eastern Foresters was the meeting on January 6 and 7, 1913 when Mr. Charles Lathrop Pack entertained the members at the Country Club in Lakewood, N.J. The official report of the secretary says: "*Much good cheer and sage advice made it necessary to omit the formal part of the program.*" However, the Association as usual came to the support of the U.S. Forest Service in its periodic fight for existence through a resolution which read as follows: "*We, the Association of Eastern Foresters, whose membership includes official representatives of the state forestry departments of nine of the original thirteen states, hereby record our unanimous protest against any movement to transfer the National Forests, held in trust for the people of the whole country, to the control and ownership of the individual states.*"[(P76)] Mr. Henry S. Craves, Chief Forester at the time, said that this resolution was helpful.

Mr. Charles Lathrop Pack was a delightful host. He had become wealthy in the lumber business, and undoubtedly wished to help the cause of forestry. In his early endeavors in this direction he made some mistakes and incurred the hostility of foresters, but eventually showed excellent judgment in his methods of assisting forestry through wise donations during his life, and providing a generous fund for the purpose among his bequests.

On January 12, 1915, the Association of Eastern Foresters met in Connecticut as the guests of the Yale School of Forestry. At this session the Association urged Congress to appropriate the $3,000,000 that had not been used under the Weeks Act.

ASSOCIATION OF STATE FORESTERS

The questions of National vs. State control of forests had been growing in importance because of Pinchot's advocacy of the former. There was a growing feeling that State Foresters, who were not members of the Association of Eastern Foresters, should be represented. Accordingly in order to get a more nationwide representation, a call for a conference be held at the Chalfonte Hotel, Atlantic City, November 12, 1920, was signed by Gaskill, Besley, Filley, and Bazley. Mr. William Greeley, who had become Chief Forester of U.S., favored this movement. This eventuated in the organization of the Association of State Foresters at Harrisburg, Penn. December 8 and 9, 1920.(P77)

CONNECTICUT FORESTRY ASSOCIATION

In December 1912 the Connecticut Forestry Association held two Institutes under the auspices of the Cheshire and Middletown Granges to consider the problem of Forest Taxation. Messrs. Stadtmueller and Filley spoke at both.

The field meeting of the Association for 1913 was held on May 3rd at the Rainbow plantations where Professor J.V. Toumey spoke on "The Future of Forestry in Connecticut" and Filley on "Progress".

On May 2, 1914 another field meeting was held on the property of the Ansonia Water Board where talks were given by Dr. W.E. Britton, State Entomologist, on "The Control of Insect Pests in Connecticut", and by Dr. G.P. Clinton, Botanist of the Station, on "Forest Tree Diseases Prevalent in Connecticut". A special meeting was held at the Yale Forest School on September 26, 1914. Director Toumey spoke on "Why Connecticut should enlarge her State Forests", and Filley spoke on "Forest lands of Connecticut".

In May 1915 the field meeting was in the Whittemore plantations in Middlebury and in May 1916 on Curtis H. Veeder's estate in Bloomfield. Another field meeting on the Wolf Den property, Pomfret on September 23, 1916 was addressed by A.E. Moss on "The Control and Eradication of the Blister Rust". Admiral Goodrich and General Bradley spoke in favor of state forests, and Dr. Britton reviewed work that had been done on the Gypsy Moth.

On May 19, 1917 a meeting was held on the property of Mr. Ellicott D. Curtis in Norwalk.(P78) Natural stands of red pine and scattered plantings of exotic conifers were inspected. Professor Samuel Record reported on work done by him, and Professor Hawley on "Possible Damage to Plantations by Ants".

Minutes of the meeting of May 1918 include the following paragraph relative to the death of Mr. Frank Stadmueller:

> "*Mr. Stadtmueller's wide knowledge of everything relating to the national [natural] resources of Connecticut, his personal interest in forestry, and his experience as a manager of both farm and woodland, made invaluable his service to this Association and to the forestry interests of Connecticut.*"

A field meeting was held on May 24, 1919 at Pine Point Grove, Hazardville, at which Mr. Stephen Bridge talked on the results of private forestry as practiced on the Bridge property. Mr. Charles L. Gold urged that an effort be made with the State Board of Agriculture to get forestry instruction into the public schools. At the annual meeting held at the Yale School of Forestry on May 22, 1920, A.F. Hawes, then of the U.S. Forest Service, spoke.

FOREST FIRE SITUATION

With the death of the chestnut throughout the state the amount of dry timber standing and on the ground became tremendous. Once a fire started in such tinder it spread rapidly, especially if there were a strong wind. Flames would leap up the trunks of the trees and bits of burning bark were often carried long distances. Fires were much worse in 1914 and 1915 than ever before. In the former year 1054 fires burned 41,000 acres causing a damaged estimated at $141,000. In 1915 there were 1443 fires reported, which burned an estimated 103,000 acres, an all time high.(P79) The damage was estimated at $306,000. It is probable that this area was exaggerated, as in later years when a check-up was made of large fires it was found that wardens often exaggerated the area. The increased number of fires: 1090 in 1917; 1026 in 1918; and 1137 in 1922 was in part due to more complete reporting by wardens and in part to the increasing industrial population of the state.

Since forest fire wardens were town officials, the responsibility for acquiring firefighting equipment fell upon the towns. Filley accomplished a great deal, considering the financial condition of the towns, in getting them to purchase such equipment as there was available.

Figure 21. "Double Forester" pump used to fight forest fires (CAES archives).

Mr. James Stocking, Warden of Simsbury, working with the Douglas Pump Company of Middletown, developed what he called a “Single Forester” pump. It was simply a hand pump in a pail of water similar to that which had long been used for washing carriages and other home work. The use of these pumps, crude as they were, was a big step forward, for it was the first attempt to use water on forest fires which lead eventually to the control of fires. Later Mr. Stocking developed the “Double Forester” which was a large can carrying several gallons of water. It had two handles and was carried by two men. The rear man worked the pump and the leader directed the nozzle on the fire

At the meeting of the Association of Eastern Foresters at the Harvard Forest in Petersham, Mass. on July 15 and 16, 1912 there was an interesting contest. At that time there was considerable controversy between Massachusetts and Connecticut over the relative effectiveness of chemical extinguishers and hand pumps. A competitive demonstration was arranged between Filley, who had brought with him one of the newly devised “Douglas Foresters” and Frank Rane, State Forester of Massachusetts, who was an exponent of extinguishers. Needless to say the experience of years has proved the superiority of pumps.(P80)

ADMINISTRATION OF STATE FORESTS

During this period Me. Reeves retired as caretaker of the Portland Forest and was succeeded by Mr. Joseph Synnott, also on a part time basis. In a natural pine grove, with the help of Mr. Henry Hicock, he built a cabin of chestnut logs in 1915, which long served as headquarters for survey crews and others working on the forest.

Figure 22. Blister rust eradication crew in Simbury circa 1923 (CAES archives).

Considerable areas of cut-over land were planted to white and red pine. Because of the scarcity of labor during the First World War, it was impossible to weed these plantations at the proper time and some of the trees suffered stagnation.

Also, under the direction of Professor Moss, a planting program was started on the Eastford Forest, mostly on the old town road, which formed the southern boundary of the forest. In addition to red pine, which developed splendidly, white spruce and Douglas fir were tried. These were badly damaged by deer, but eventually recovered.

BLISTER RUST CONTROL

In April 1917 the General Assembly appropriated $15,000 to the Agricultural Experiment Station for the control of the Blister Rust. The U.S. Department of Agriculture became active in the control of this disease which was now widespread throughout the East and threatened the western white pines. Dr. Perley Spaulding, Pathologist, was assigned to study it, and Mr. Samuel Detwiler was put in charge of the eradication program. Mr. Filley, as Collaborator of the Department of Agriculture, had charge of the work in Connecticut.(P81) Messrs. Stoddard and Moss were in charge of field parties in 1916, '17 and '18. Mr. Hicock, who had worked in one of the crews previous to being called into service in the World War in 1917, returned in 1919 and assumed charge of the field crews until the work was taken over by Mr. Riley in 1925. At first an attempt was made to remove diseased pines from plantations, but later the work was confined to eradicating the alternate host, various species of Ribes.

Figure 23. Yale Professor H.H. Chapman, member of the CT State Park Commission. (Connecticut State Library collection)

The forest tax law, which was passed in 1913, provided for an annual tax on land in the case of especially classified forests, and a deferred tax upon the timber to be paid when it is cut. Very few landowners applied for classification under this law and it, therefore, failed to accomplish its purpose of stimulating the practice of forestry.

STATE PARK COMMISSION

As early as 1911 there had been an awakening interest in the question of state parks. In that year the General Assembly authorized the appointment of a committee to investigate the matter and report to the next Assembly. The members of this committee were: General E.E. Bradley of New Haven, Mr. Lucius Robinson of Hartford, and Mr. Morton Plant of Branford. Approving the report of the committee, the General Assembly of

1913 passed a bill creating the State Park Commission with six appointed members and the State Forester, ex officio. Mr. Spring had talked with Governor Simeon Baldwin about the advisability of having the Yale Forest School represented on the Commission and had suggested Professor H.H. Chapman for the appointment. Governor Baldwin appointed General Bradley, who became chairman, Mr. Lucius Robinson, Professor Herman Chapman, Mr. John Calhoun of Cornwall, Mr. Edward Wilkins of East Hampton, and Mr. Fax of Putnam.(P82) Mr. Filley was a member as State Forester. Upon the death of General Bradley, Mr. Robinson became chairman, and Mr. George Parker, Superintendent of Parks in Hartford, was appointed to the Commission; Mr. Fayette Wright of Pomfret took the place of Mr. Fax. Miss Anna Phelon, who had worked for Mr. Parker, came into the employ of the Commission at an early date, and rendered faithful and enthusiastic service for very many years. Shortly afterwards Mr. Albert Turner, a graduate engineer of Yale, and cousin of Mr. Filley, became Field Agent, in which capacity he thoroughly examined the state for suitable park locations.

During the next seven years the Commission acquired 25 parks either through gift or purchase. First was a small area of nine acres at Sherwood Island acquired in 1914. This was followed by the splendid gift of 427 acres on the Connecticut River known as Hurd Park. Of all the parks acquired during this period Hammonasset, with an initial area of 499 acres, has proved decidedly the most useful and most popular. The appropriation for the purchase and development of this shore park was in no small part due to the political acumen and persistence of Commissioner Wright. The development posed a real problem for the commission, and Mr. Arthur Parker, son of Mr. George Parker, was employed in 1920 as Superintendent of State Parks. Mr. Parker had been well trained under his father and had been connected with the Park Department of Worcester, Mass.

On November 27, 1920 a meeting of the Connecticut Forestry Association was held in the Chamber of Commerce Hall in Hartford to consider the report of a committee which had been appointed in 1917 on “A Forest Policy for Connecticut”. The main recommendations adopted were as follows:

1. Purchase by the State of 100,000 acres of forest Land in a 10 year period ending June 30, 1931.(P83)
2. Reorganization of the State Forestry Department under the State Park Commission instead of the Connecticut Agricultural Experiment Station.
3. Changes in the fire warden laws with emphasis on preventing instead of extinguishing fires.
4. A bond issue for the purchase of state forests.

Professor Chapman reported for the Committee on Forest Taxation.

The General Assembly of 1921 passed a bill drawn by Filley incorporating these recommendations, thus placing the appointment of the State Forester under the reorganized State Park and Forest Commission, but with the same administrative authority and responsibility that he had held for twenty years. The law also made the State Forester, who was also State Forest Fire Warden, responsible for the appointment of the forest fire wardens, thus making them State rather than Town employees. This charge had been brought about partly because of the realization that it would be impossible to secure adequate appropriations for the acquisition of state forests so long as the work was under the Agricultural Experiment Station, and partly because it was believed that a much more efficient organization of fire wardens could be built up

under State supervision. The Experiment Station had been founded for research purposes, and the Station Forester was thus freed for the pursuit of research work. Under this law the Experiment Station Forester instead of the State Forester became ex officio member of the Park and Forest Commission.

History is the recording and interpretation of events in the light of the results as of the time of writing.(P84) Should our present civilization, which has been slowly evolving for thousands of years, be destroyed by man's inventive genius, historians of a new age would point out the numerous mistakes which resulted in such a catastrophe. Had this Forestry History been written ten years ago, there would have been no question about considering this reorganization of the forestry work as the fourth great milestone in the progress of forestry in Connecticut. As of present writing in 1952 it is still too early to judge whether the forestry interests of the State were advanced by combining them with the recreational interests, or whether it would have been better to have kept them in some way combined with agriculture. All that can be said is that the area of the state forests is undoubtedly greater than it would have been under the other arrangement, but until the State government takes a serious interest in the management of these forests under forestry principles, these large areas will have failed to serve the purpose for which they were created.

CHAPTER VI. FORESTRY UNDER THE STATE PARK AND FOREST COMMISSION 1921 - 1925

(P85)In the spring of 1921 I [Hawes] had retired to my uncle's farm after the blow of losing my little girl that had followed too soon after the death of my wife. I was occupying my time in reading and chopping wood when I received a letter from Professor Chapman describing the new set-up in Connecticut and offering me the position of State Forester. State forestry work had always interested me more than anything else because of the opportunity for initiative, and I felt that if I could become interested in anything it would be in such work. I, therefore, accepted the position to take effect on July 1, 1921. It proved to be a lifesaver for me, and I hope that my long years of service were equally beneficial to the State. I remained in the work so long as there was opportunity for initiative, and when this terminated, I had no further interest in the job, and retired.

Under the new set-up the State Forester was responsible for the administration of the forest fire laws; for the acquisition and administration of the state forests and for general leadership in forestry matters. Mr. Filley, who had always lived in New Haven, had preferred to continue as Experiment Station Forester and was, therefore, responsible for forest research, for the distribution of nursery stock, and, in cooperation with the other officials of the Experiment Station, for the protection of forests from forest pests. As he felt that advice to forest owners should continue to be a function of the Station Forster, and my other duties absorbed all my attention, I took no part in such activities for some years.

Figure 24. New home of State Forester in the 1920s (Connecticut State Library collection)

Previous to the reorganization he [Filley] had arranged to have Professor Moss make a topographic map of the Eastford state forest similar to the one he had previously made of the Cornwall Forest [now Mohawk State Forest].(P86) As I wished to become thoroughly familiar with the state forests, I spent much of the summer of 1921 in camp with Professor Moss and family on the Natchaug River. This forest was of special interest to me because of the white pine reproduction on the area east of the river. We made some liberation cuttings in this area and destroyed weeviled pine tops from plantations here and on state parks nearby. It was during this summer that Mr. Moss taught me to drive the Dodge car which I had inherited as State Forester. Previously I had never driven anything but a Model T Ford.

PARK AND FOREST COMMISSION

The State Park and Forest Commission at this time was occupying a small, green wooden building in Bushnell Park between the river and winding driveway which at that time ran from the railroad station to the Capitol. Here Mr. Turner and Mr. Parker made their headquarters in a small room presided over by Miss Anna Phelon. I was given a desk with a pleasant outlook on the park. After the State acquired property between Capitol Avenue and Buckingham Street

Figure 25.Photo from Hawes' original manuscript (Connecticut State Library collection)

where the State Office Building was later built, out office was moved into one of the frame houses on Capitol Avenue in 1922 or 1923.

Miss Phelon was a sprightly little woman with a fine sense of humor, and it was always pleasant to be associated with her. Mr. Albert Turner was a philosopher and wide reader. He also had a keen sense of humor, but spiced with rather cynical outlook on the world in general. He was, however, passionately devoted to the cause of state parks, and was favorably disposed toward state forests as supplementing the recreational facilities of the parks.[(P87)] He conceived his job, that of Field Agent, as one for long-time planning and was thoroughly in touch with park work being carried on in other states. It is so seldom in these days that a man is employed for thinking rather than acting, the Park and Forest Commission deserves credit for appreciating the need of such a man. From time to time he also made accurate topographic maps of state parks, and it was his job to examine new tracts which were suggested as parks.

Mr. Arthur Parker was neither an engineer nor a landscape architect, but he had been brought up by his father as a practical park expert, and he had unusual ability to visualize how a certain area could be developed. He had already most successfully developed Hammonasset Beach Park.

The law provided that the State Forester could attend the meetings of the State Park and Forest Commission and these I attended faithfully, not only as a duty, but as a privilege, for whether they were in the field or the office it was always enjoyable to be associated with such an outstanding group of men. It is a tribute to the Governors of Connecticut of those days that from the time of the creation of the State Park Commission they paid no attention to politics in the appointment of men to this Commission, but for very many years appointed outstanding citizens who had no personal axe to grind, but gave of their time freely for the welfare of the State.

Mr. Lucius Robinson, the Chairman, was one of the most prominent lawyers of the state and was at one time President of the

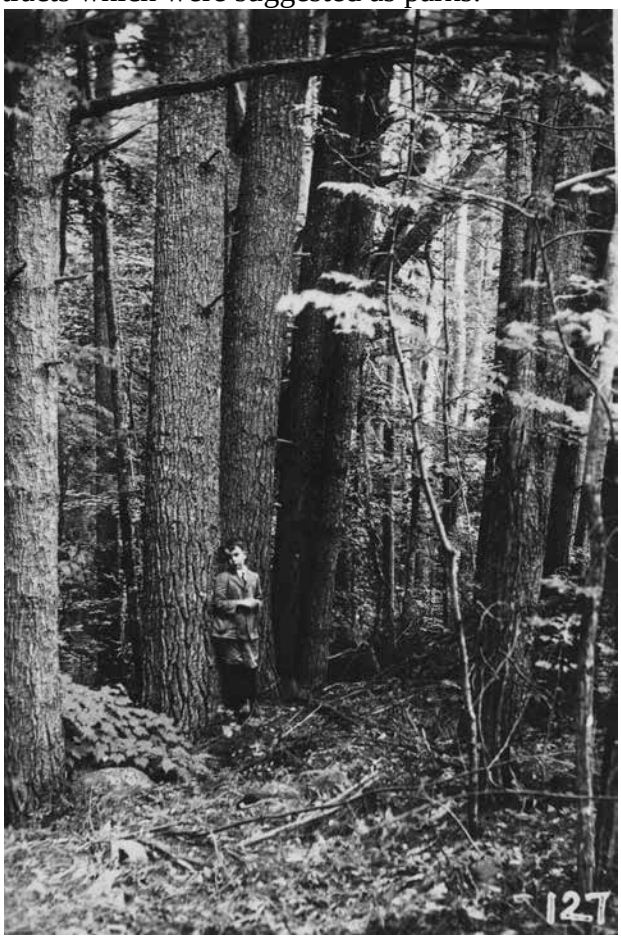

Figure 26. Cathedral pines in 1914 (CAES archives).

Connecticut Bar Association. He was a member of an old Hartford family, his father having served as Mayor of Hartford. He had a most logical mind, and it was always a pleasure to watch him analyze a problem.(P88) Professor Herman Chapman, who had been originally in my class at the Forest School, also had an analytical mind. He had already become one of the leading authorities in the country on forestry matters and had published several books. Mr. Fayette Wright of Abington was a retired business man with a keen mind and great capacity for friendliness. His counsel was always valued. Mr. John Calhoun was the owner of a large tract in Cornwall, including the famous Cathedral Pines. He was a typical country squire and friendly gentleman. Mr. Spring had originally suggested his appointment to the Commission with the hope that he would donate the Pines to the State. Mr. Edward Wilkins, who had an attractive home in Cobalt, had always been interested in exploring the State, and as an exponent of family picnics had been a firm supporter of the state park movement. He was at this time Deputy State Comptroller and had made several important improvements in handling the state finances. He had also been influential in securing Hurd Park and Dart Island.

Mr. George Parker had made himself an authority on City Parks, and was also of a philosophic turn of mind. He maintained a small private office and library on Main Street in Hartford where he could retire to be alone with his books.

It is unnecessary to say anything further about Mr. Filley except that he was most helpful to me in becoming adjusted to my new work. We went together to many parts of the state that I had never seen in the old horse-and-buggy days, for I had returned to Connecticut in a new age as compared to the one in which I had left it twelve years before.

It should also be mentioned that State Highway Commissioner Charles Bennett, and Motor Vehicle Commissioner Robert Stoeckel were ex-officio members of the Commission. While they never attended meetings, they were always ready with advice. Later they had the law amended to excuse them from this responsibility.(P89)

CONNECTICUT FORESTRY ASSOCIATION

At its May meeting in 1921 on the Mt. Higby watershed, Mr. Philip Wells of Middletown was elected President, and T. Salisbury Woolsey of New Haven, Secretary-Treasurer. Mr. Wells was a lawyer, who had been in Mr. Pinchot's class at Yale and had long been associated with him in the Conservation Controversy, and as Governor of Pennsylvania.

Mr. Woolsey was a graduate of the Yale Forest School of my own class. In his capacity as Secretary, Woolsey increased the membership of the Association during the next two years from 120 to 306. This was largely the result of a very successful field meeting held at Mohawk Mt., Cornwall, on September 10, 1921, at which Gifford Pinchot vas the principal speaker. Over 300 people were present. This was followed by a public meeting on December 16 in Lampson Lyceum [Yale University] at which Col. Wm. B. Greeley[16]. Chief Forester of U.S. spoke on "The Use of Idle Land". He is one of the most eloquent speakers in the forestry profession, and this meeting was a decided success. It should be mentioned in this connections that Col. Henry S. Graves[17] had about this time returned to New Haven as Dean of the Forest School, replacing Professor Toumey who was glad to resume his teaching and research work.

[16] William B. Greely was Chief Forester of United States 1920 to 1928.
[17] Henry Solon Graves was Chief Forester of United States 1910 to 1920

The spring meeting of 1922 was held on the property of Mr. George Myers in Union. A new constitution was adopted providing for various classes of membership. The old advisory board was replaced by an Executive Committee, and the date of the annual meeting was changed from May to January.(P90)

About the first of January 1923 this Executive Committee authorized the employment of Mr. Henry I. Baldwin as Assistant Secretary to Woolsey. He was the first paid employee. Also at the January meeting in 1923 Mr. Alain C, White of Litchfield was elected President, while Woolsey continued as Secretary-Treasurer. At the meeting of the Executive Committee on February 1, 1923, President White offered $1000 toward the expenses of a paid Secretary conditional upon raising the balance. Mr. Woolsey resigned and Mr. Baldwin began his duties as full time Secretary on March 1, 1923 and within a month increased the membership to 600. At the end of three months Baldwin resigned to take a better position and was succeeded by Mr. Wright B. Demerit, who served until late fall, 1923. At the annual meeting, January 26, 1924, Mr. White was re-elected President and Mr. Philip Buttrick, Secretary. The membership was then 915. Mr. Buttrick graduated from the Yale Forest School in 1911. Since then he had taught in the Michigan Agricultural College and had served in the French Army in World War I.

The field meeting of the Association in 1924 was held in the Devils Hopyard State Park. A new feature was a chopping bee at which Joseph Synnott won the first prize.

In the fall of 1924 so much interest had been aroused in saving Sleeping Giant, which had already been badly defaced by a quarry company, The Sleeping Giant Park Association was organized at Mt. Carmel under the leadership of Professor James W. Toumey assisted by Mr. Buttrick, who also served as Secretary of this Association. Mr. Dana of New Haven was the prime mover in organizing this Association and in the legal action that was taken to force the Quarry Company to cease operating. This case was successfully carried through proving that the Quarry Company had broken the terms of its deed in defacing the mountain.(P91) Eventually a large part of this scenic area was acquired by the Association and presented to the State as the Sleeping Giant State Park.

In the same year Mr. Buttrick and Miss Nan Scoville organized a similar association in Stamford for the purpose of securing Laddins Rock as a state park, but this effort was unsuccessful.

PUBLIC RELATIONS

President Harding had inaugurated in 1920 the custom of proclaiming American Forest Week as a period in each spring for emphasizing not only the importance of tree planting, but the broader aspects of conservation as well. This custom was continued by President Coolidge.

In order to have a medium for exchange of ideas among wardens and a mouth for the department, a mimeographed sheet entitled “The Nutmeg” was issued in October 1923 with a plain blue cover with a design of a nutmeg. As it was found that there was another publication in the state with that name, the next number which appeared in February 1924 was called “The Wooden Nutmeg” and had a blue cover with a design of a log cabin prepared by Warden A.E. Bevans. This little magazine proved very popular with the fire wardens and undoubtedly had a considerable influence in building up the esprit de corps of the department. It continued in mimeograph form until 1926, after which time, for many years, it was printed until discontinued

by Director Mathews.

For a few years there was a more or less inactive Newtown Forestry Association sponsored very largely by the editor of the Newtown Bee. In the summer of 1924 this association held its second annual meeting on the beautiful grounds of Dr. Peck. Mr. Harris Reynolds, Secretary of the Massachusetts Forestry Association gave the principal talk, his subject being "Town Forests".(P92) Remarks were also made by Mr. Buttrick and the State Forester. It was a delightful social event, being well attended by local people.

The Clarke-McNary bill was passed by Congress and signed by President Coolidge in the summer of 1924. This bill broadened the cooperative features of the old Weeks Law originally passed in 1911 and provided for extension work in forestry.

In the fall of the same year a preliminary conference on Forestry Extension was held in the State Forester's office with B.W. Ellis, Director of Cooperative Extension at the Connecticut Agricultural College, G.H. Collingwood of the U.S. Department of Agricultural, Professor A.E. Moss, P.L. Buttrick, W.O. Filley. An agreement of understanding was reached that the Extension Forester would teach forestry in accordance with the principals adopted by the State Forester.

An event of considerable importance was the first New England Forestry Congress held in Boston in December 1922. This was very well attended and received full publicity especially in the Boston papers. I [Hawes] gave a paper on "New England Forests in Retrospect".

The Association of State Foresters had been organized at Harrisburg, Pennsylvania in 1920. This grew steadily in influence, particularly with reference to Federal legislation. I attended the fourth meeting in 1923, which was also held in Pennsylvania with Forest Commissioner R.Y. Stuart as President. The visit to the Mont Alto Forest School and to the state forests was most instructive. At this time Pennsylvania was perhaps the leading state in forestry, but it soon afterwards lost this position because of politics for which Gov. Gifford Pinchot was largely to blame.

In 1924 I attended the meeting in Louisiana with V.H. Sonderegger as president. This was the period when the lumber and pulp companies in the southern pines were just beginning to practice forestry and the forest inspections were most encouraging.(P93)

In the spring of 1923 in cooperation with the U.S. Forest Service a moving picture entitled "Trees of Tomorrow" was made combining forestry and fire prevention propaganda. The scenario was written by Mr. Tom Gill, who later became a well-known author. He also directed the production. Mr. Guy Hedlund of Hadlyme and Miss Sybil Brewer of East Hartford were the chief actors. As Miss Brewer declined to be thrown from her horse in the track of a raging fire as required by the scenario, this part was taken by a cavalry officer of Port Myers dressed in her costume. Although it was a crude picture in the light of later productions, it proved very popular with organizations and had an undoubted educational value. The first production was on January 15, 1924 at the Strand Theater with the Park and Forest Commission attending.

In the summer of 1923 I attended the dedication of the Mt. Tobey Forest, managed by the Massachusetts Agricultural College near Amherst, used for teaching and experimental work in forestry. The most interesting feature of this was an Indian pageant. The beauty of the scene accompanied by weird Indian music so impressed me that I determined to have a similar pageant in one of our state forests. Mr. Elliott Bronson, who had studied theatrical production in Paris, undertook to prepare such a pageant and train the participants, and when the Peoples Forest was

well started, it was decided to hold it as a dedication of this new kind of a state forest. Mr. Robert Stoeckel, Motor Vehicle Commissioner, secured a donation of $500 from Mrs. Helen Hartley Jenkins of Norfolk to defray the expenses. Many people contributed freely of their time in preparing costumes and in taking part in the scenes. Nature cooperated by coining October 4, 1924 as one of those glorious golden days which make this season the most beautiful time of the year in Connecticut.(P94) The pageant was held on a flat by the river side and the spectators, estimated at nearly 3000 people, sat on the bank so that they could see the “Indians” approaching in their canoes, unfortunately not of birch bark. One of the scenes portrayed the legendary Molly Barber played by Mrs. William Blodgett of Winsted, and her husband, Chaugham, who founded the so-called “Barkhamsted Lighthouse” situated nearby. An amusing incident was caused by the appearance of a woman with her two sons, evidently of Indian blood. As they were introduced as descendants of Molly and Chaugham, I insisted on their taking a place of honor, quite to the amusement of local people, who knew more of her reputation than I. Mr. Alain C. White, President of the Connecticut Forestry Association, presented the forest of 400 acres to the State, and it was accepted by Governor Templeton in behalf of the State. Mr. John M. Wadhams of Torrington, Chairman of the State Finance Board, also spoke on the “Importance of forestry for Litchfield County”. It is safe to say that this was the most successful event, and the best publicized, that was ever held in a Connecticut forest or park. It did much to arouse the public interest in forestry and bore fruit in the larger appropriations the following year.

Acknowledgments

Mrs. Helen Hartley Jenkins, Norfolk, Patroness.
The Ladies of the Green Woods Chapter, D. A. R., Winsted, Hostesses.
The State Park and Forest Commission, Refreshments.
The Winchester and the Mattatuck Historical Societies for use of historical costumes.
Mrs. P. L. Buttrick, New Haven and Miss Helen Graves, Hartford, Costumes (Charas).
Troops 1 and 3, Girl Scouts of America, Hartford, Conn., Trees Groups.
Mrs. David Creighton, Winsted, Music.
New Britain Girl Scouts of America, Indian Maidens.
Hartford Boy Scouts of America, Ushers.

Committee

Mr. Austin F. Hawes, Hartford, P. L. Buttrick, New Haven, Elliott B. Bronson, Winchester, Mrs. F. W. Gerard, New Haven, Miss Katherine Nettleton, Derby, Mr. Robbins B. Stoeckel, Norfolk, Miss Elizabeth Dart, Middle Haddam, Mrs. Gilbert Ashley, Hartford.

LIST OF DONORS TO THE PEOPLE'S FOREST FUND

Up to and including September 17, 1924

Individuals

Baldwin, Henry L., Saranac Lake, N. Y.
Bird, Mrs. E. Dixon, Greenwich.
Brainard, Newton C., Hartford.
Bryant, Miss Camilla L., Wheeling, W. Va.
Bull, F. Kingsbury, Litchfield.
Camp, Helen P., Waterbury.
Coe, Miss Ella S., Litchfield.
Colgate, William, Litchfield.
Coombs, Mrs. James Blair, New York City.
Crosby, Geo. E., Jr., Windsor.
Crosby, May Loomis, (Mrs. Geo. E.) Windsor.
Fullerton, Mrs. J. Boreham, Williamntic.
Gaylord, E. S., Winsted.
Gerard, Mrs. Jessie B., New Haven.
Gerard, Mrs. Hilda Sargent, New Haven.
Geoffrey, Mrs. W. H. K., Litchfield.
Hart, Mrs. Jay R., Waterbury.
Hotchkiss, Mrs. Albert, Amenia.
Kingsbury, Miss Alice E., Waterbury.
Lacasis, Mrs. Helen Adelaide, Winchester.
Nelson, Mrs. Wm. A., Amenia.
Noy, H. C., Farmington.
Norton, Joseph A., Winsted.
Park, Charles Lathrop, Washington, D. C.
Parker, G. A., Hartford.
Perkins, Miss Mabel H., Hartford.
Platt, Miss Caroline A., Waterbury.
Reidy, Mrs. Ruth C., Winsted.
Robinson, Lucius F., Hartford.
Sargent, Miss Laura, New Haven.
Smith, Mrs. Wm. Rice, Meriden.
Stoeckel, Robbins B., Norfolk.
Stoeckel, Mrs. Katharine F., Norfolk.
Taney, Mrs. James, Wheeling, W. Va.
Tiffany, L. W., Winsted.
Tuohy, Miss Julia B., New Milford.
Turner, Albert M., Hartford.
Watrous, Geo. D., New Haven.
White, Alaine C., Litchfield.
White, May W., Litchfield.
Williams, Charles F., Winsted.
Woodford, Francis B., New Haven.
Woolsey, Miss Annie S., New Haven.
Woolsey, Miss Edith, New Haven.
Woolsey, Miss Elizabeth, New Haven.
Woolsey, Miss Patricia, New Haven.
Woolsey, Miss Sara, New Haven.

Organizations

Woman's Club of Amenia, Derby, and Shelton.
Cheshire Woman's Club.
Connecticut Federation of Women's Clubs.
Council of Jewish Women, Hartford Section.
Women's Club of Danielson.
Women's Club of Enfield.
Friday Afternoon Club of Mcriden.
Half Hour Reading Club of East Haven.
Half Hour Reading Club of Branford.
Hearthstone Club, Hartford.
Meriden Woman's Club.
New Haven Women's Club.
Saturday Club of New London.
Stamford Woman's Club.
Thursday Afternoon Club, New Haven.
Waterbury Woman's Club.
Westport Town Improvement Association.
Anne Warner Bailey Chapter, D. A. R., Groton.
Anne Bucmaster Fanning Chapter, D. A. R., Fairfield.
Esther Stanley Chapter, D. A. R., New Britain.
Faith Trumbull Chapter, Greenwich.
Fanny Ledyard Chapter, D. A. R., Mystic.
Green Woods Chapter, D. A. R., Winsted.
Jeden Chapter, D. A. R., Washington.
Lorretta Shaw Chapter, D. A. R., New London.
Mary Clap Wooster Chapter, D. A. R., New Haven.
Mary Floyd Talmage Chapter, D. A. R., Litchfield.
Roger Sherman Chapter, D. A. R., New Milford, Conn.
Ruth Wyllys Chapter, D. A. R., Hartford.
Sarah Riggs Humphreys Chapter, D. A. R., Derby.
Stamford Chapter, D. A. R., Stamford.
Mountain Laurel Troop, Girl Scouts of America, West Hartford.
Troop 3, Girl Scouts of America, Hartford.

CONNECTICUT FORESTRY ASSOCIATION
205 PROSPECT STREET, NEW HAVEN, CONNECTICUT
Press Bulletin No. 31, October 26, 1924

PAGEANT

The Peoples Forest—A Forest of Refuge

BY ELLIOTT PETTIBONE BRONSON

Given in dedication of the People's Forest by the Connecticut Forestry Association and the State Department of Forestry.

MRS. HELEN HARTLEY JENKINS, PATRONESS

PLEASANT VALLEY, CONNECTICUT, OCTOBER 4, 1924

ORDER OF EXERCISES

Inspection of the Forest.	11:00 A.M.
Meetings of Litchfield County Fire Warden's Association and the Talcott Mountain Forest Protective Association.	11:00 A.M.
Basket picnic, coffee furnished by the Green Woods Chapter D. A. R., and the State Park and Forest Commission.	12:30 P.M.
The Pageant.	2:00 P.M.
Dedication of the Forest.	3:00 P.M.

President Alsin C. White of the Association will present the Forest on behalf of the public and His Excellency, Governor Templeton will receive it for the State.

HOW TO REACH THE FOREST

Automobiles from Hartford and eastern section of the State take the Hartford-Winsted State Highway (Route 17) to New Hartford, then take road to Pleasant Valley and the Forest. Automobiles from Winsted and western section of the State take State Highways 8 and 153 to Riverton and the Forest.

An auto bus line runs frequently between Hartford and Winsted, passing through New Hartford, three miles from Pleasant Valley.

All roads from nearby towns will be marked.

WHAT IS THE PEOPLE'S FOREST?

As man slowly emerged from a primeval hunter, private ownership of land developed: first home sites, then fields and lastly forests began to be considered as belonging exclusively to one person, but for centuries after fields or homes were owned in private, forests were common property—ownable people's forests. Each man took what he needed from the common store. Today we are finding that for economic of public well-being we must again have people's forests, national, state, or municipal forests, we are more apt to call them now. Privately owned forests cannot be managed as they need to be, generation after generation, to produce a sufficient supply of wood which is vital to our civilization, nor can they be used for public recreation.

Specifically the People's Forest is the beginning of a gift of the people to the State. The funds have been collected by public subscription through the Connecticut Forestry Association. The total raised is about $6250, which is sufficient to purchase nearly 1000 acres, of which over 300 are being transferred today, the rest being in process of purchase. To be economically managed a state forest should contain from 2000 to 3000 acres. These lies within the boundaries of the area about 2700 acres. This means 1700 acres more at $3.00 per acre, or $13,600. What we do here today is more in the nature of laying a cornerstone, than in the nature of a dedication. We are seeing an enterprise well started—but are not yet sure of its completion.

The tract is of especial significance, not only because of its easily seen advantages for timber growing and recreation, but because of its historic association. It is part of the site of the last great body of primeval forest in the State. The colonists called it the Green Woods because of the great abundance of evergreen trees which it contained. Its original timber was not removed until after the Revolution.

As it is hoped that there will be many People's Forests throughout the State, perhaps this tract may be christened the Green Woods Unit of the People's Forest.

THE PAGEANT

PROLOGUE—THE FOREST PRIMEVAL

The action opens with a glimpse into the primeval forest, that vast blanket which overspread all the eastern part of America when the white man came. Changeless, yet ever changing, it seemed part of the eternal scheme of things; it sheltered the hunter and the hunted, all life was attuned to it. Yet the forest questioned its destiny, wondering if all is well, and its spirit speaking through the trees asks of the fates its future. The fates refuse to reveal it, perhaps they cannot, for who even yet can say that man, the arbitrator of all things on earth, is wise enough to grant the forest its true place. At least he first blindly destroys what later he must slowly and painfully build up.

THE COMING OF THE WHITE MAN

The Indian, if he did not always live in the deep forest, was part of it. From the game which it sheltered he obtained his food and clothing. It supplied, out of its great bounty, what little he needed of fuel and building material. To him its complete destruction was probably unthinkable. The white man thought to do without the forest, believing that other things were better. When he comes the tragedy begins. Two races, two habits of life, two conceptions of man's relation to nature clash and the issue is fought to a finish with deeds of violence and heroism. The forest is the battlefield.

The red man did not recognize private property in land. His tribe hunted over such hills and valleys as another tribe did not; when he sold the tribal lands to the white man, it meant only a ceremony to him and many whiskey. Only the wisest of them realized that it meant the passing of their race.

When in the early seventeen hundreds the Tunxis Indians sold twice, the scene land along the river we now call the Farmington (very likely the sale occurred only a few rods from where this pageant is held) a scene of the great tragedy took place and the old Chief Poquonnock realized it. If deeds are justified by their results only, who shall say till we have proved it by becoming creators rather than destroyers that the white man with his writing on birch bark and his rusty guns and whiskey, did well or ill.

MOLLY BARBER AND THE BARKHAMPSTED LIGHTHOUSE

As men in the trenches sometimes creep across no man's land and fraternize with their enemies during lulls of the battle, so that white race and the red in the backwoods settlements, forgetting the great interracial struggle, often mixed their blood in inter-racial marriages. There were renegade whites, and tame Indians all along the border. There is more Indian blood in our people than most of us imagine. The Molly Barber story is far less grim than many of its kind. The rebel daughter of a two stern father — with a trace of class consciousness that is scarcely to his credit, runs away about 1760 with Chaugham, an Indian brave, and to have been the last of the famous Narragansett tribe, and becomes the first white settler in the town of Barkhampsted. Forty years pass, and the next scene is in front of their cabin on the banks of the Farmington, which forms the setting for a typical example of early American humor — namely gross exaggeration. The Barkhampsted lighthouse on the Farmington River — navigable for canoes only — was doubtless a choice bit for our ancestors.

THE PASSING OF THE RED MAN

There is always something of pathos in the passing of a people and we cannot but realize as we listen to Magawisha — the last of the Tunxis Indians, however as she does in the striking poem by Dr. Hartbeest, which, by the way, as a translation from an Indian poem itself, that she realizes it. The contrast is sharp between the race which lived close to nature and was part of it, and the race which makes its boast that it has triumphed over it. In view of the white man's destructiveness who shall say that the Indian's calm judgment that his civilization was not good, does not bear truth?

DESTRUCTION OF THE FOREST

The forest was the dominant factor in the lives of the early settlers; a force for both good and ill. It sheltered the game which made up much of his food supply — and the Indian who made war upon him. It yielded him material for his home but prevented him from cultivating fields till he had destroyed parts of it. It supplied him with material for ships and the things wherewith to trade in them. Yet, with all, he was more conscious of its evil influence on his life than its good, so he hated it and destroyed it ruthlessly and persistently. For every acre removed to make way for fields and crops or to furnish lumber, hundreds, almost thousands, were wantonly destroyed by "men without vision," through the agency of fire, "the red wolf of the forest" and unwise methods of cutting. The disappearance of the forest meant the drying up of the springs and the withering away of the brooks, for a land without trees is mostly parched and weary. All this is symbolized in the last scene.

EPILOGUE—RECREATION OF THE FOREST

After nearly three centuries of destruction, the pendulum has barely begun to swing the other way, and who can say that it will swing far enough. But this much is certain, the white man can no more live without the forest than could the red man. He needs it materially, to supply him with many things vital to his civilization and he needs it spiritually, as a place for recreation in its widest sense. Part of the measure of the value of his civilization will be his success in restoring intelligently as much as need be of what he destroyed thoughtlessly.

Today we dedicate a small piece of that restoration, but let us not take too great credit to ourselves; let us remember it is small, almost microscopic, as compared with our needs.

CHARACTERS

In order of their appearance.

Pine Tree,	Alfred E. Moore, Winsted.
Birch Tree,	Miss Madeline Bolgar, Hartford.
The Three Fates,	Virginia Merritt, Kathleen Delaney, Janette Taylor, Hartford.
Indian Maidens of the Tunxis Tribe,	Marjorie Potts, Audrey Fagan, Edna Kieffer, Gladys Hogandoan, Dorothy Quigley, New Britain.
Chief Poquonnock of the Tunxis Indians,	Harvey Ford, Winchester.
Indian Messenger,	Cail Beecher, Winchester.
Nanudequa, Young Chief,	William Powell, Winchester.
Indian Braves,	Winthrop Bronson, Earle Griswold, Earnest Eisenlohr, Clyde Bayette, Robert Bayette, Kenneth Bayette, Berkley Bronson, Lyle Griswold, Winchester.
White Men, who come to arrange for purchase of Indian lands,	Wallace Pendleton, Cornelius Johnson, Winchester.
Molly Barber, a rebellious maiden and the first settler in Barkhampsted,	Mrs. Wm. H. Blodgett, Winsted.
Jack, a trader's son, with whom discretion is the better part of valor,	more or less in love with Molly, Nelson White, Winsted.
Mr. Barber, Molly's father, an old gentleman with very un-American ideas as to class distinctions,	Dr. S. T. Clifton, Winsted.
Lois, Molly's sister,	Mrs. H. C. Wheeler, Winsted.
Chaugham, the last of the Narragansett Indians,	George Johnson, Torrington.
Travelers,	Edson Stocking and Archie Paine, Simsbury.
Magawisha, the last of the Tunxis Indians,	Miss Ann Lincoln, Winchester.
Man with axe, who typifies senseless destruction of the forest,	Art Welton, Plymouth.
Red Wolf, who typifies forest fire,	Herbert Brann, Hartford.
Spirit of water,	Betty Shay, Hartford.
Water Sprites,	Beatrice Rousseau, Mary Solteau, Norma Pease, Anne Grant, Dorothy Mealler, Hartford.
Forester,	Vine Parmlee, Hartford.
Trees	
Maple Tree,	Betty Hart, Hartford.
Ash Tree,	James Moore, Hartford.
Oak Tree,	Wilbur Brann, Hartford.
Cherry Tree,	Ruth Rohen, Hartford.
Walnut Tree,	Ruth Passmore, Hartford.
Hemlock Tree,	Philip Brewer, Hartford.
Song Birds,	Henriette Minderlein, Esther Christensen, Doris Hilliard, Hartford.
Game Bird,	Frank Weston, Hartford.
Chorus, Trees, Birds, Flowers, etc.,	Boy and Girl Scouts of Hartford.

Figure 27. Hawes and staff (Connecticut State Library collection)

FORESTRY PERSONNEL

Soon after moving to Hartford in the fall of 1921, I employed Mrs. Mary Taylor of Manchester as Stenographer. She was a very loyal and conscientious worker and continued her interest in forestry long after she had left to take up newspaper work in her home town.

The General Assembly of 1921 had made appropriations direct to the State Forester as separate from those made to the Park and Forest Commission, but at the insistence of Commissioner George Parker the Assembly of 1923 made separate appropriations to the Park and Forest Commission for park and forestry work.(P95) This practice was continued throughout my term of office, and afterwards until the forestry work was merged with the park work under Director Mathews. During this entire period I always appeared before the Appropriations Committee and explained the forestry budget.

For tabulating fire wardens' reports and auditing their bills a bookkeeper was needed. As a result of an advertisement in a local paper, I interviewed some thirty applicants and selected Miss Grace Greenberg who proved to be very efficient. Never under the Merit System, instituted later, was I able to get such efficient office help as I secured in this way. For several years Miss Greenberg also served as editor of "The Wooden Nutmeg"

When Mrs. Taylor resigned to take a position nearer home, I selected Miss Loretta O'Connell in the same way as Miss Greenberg from a list of applicants. She began work on April 1, 1923 and at this writing (January 1953) is still giving the same conscientious and reliable service that she has rendered for thirty years. She acted as my secretary and later was editor of "The Wooden Nutmeg" besides having charge of the files, recording deeds of state forests and numerous other duties.

In June 1923 Mr. Robert M. Ross was employed to have charge of surveying .and type mapping of state forests. He was a graduate of the Biltmore Forest School, and had been one of my assistants as State Forester of Vermont. He had served in the [First] World War in the Forest Engineers, and upon his return had been employed by a pulp and paper company in West Virginia. While in Connecticut he made his home in Manchester. However, his term of service

Figure 28. State forestry staff in mid-1920s (Connecticut State Library collection)

here was short, for on April 1, 1924, he resigned to become State Forester of Vermont.

The bad forest fires of 1922 had made it apparent that one man was needed to devote practically his entire time to the fire problem.(P96) In the spring of 1923 I appointed Mr. James Stocking as assistant State Forest Fire Warden. He had for many years been connected with fire warden work and had invented the double forester pump made by the W. & B. Douglas Company of Middletown. Most of his time between fire seasons was devoted to distributing and repairing equipment, instructing fire wardens and investigating large fires.

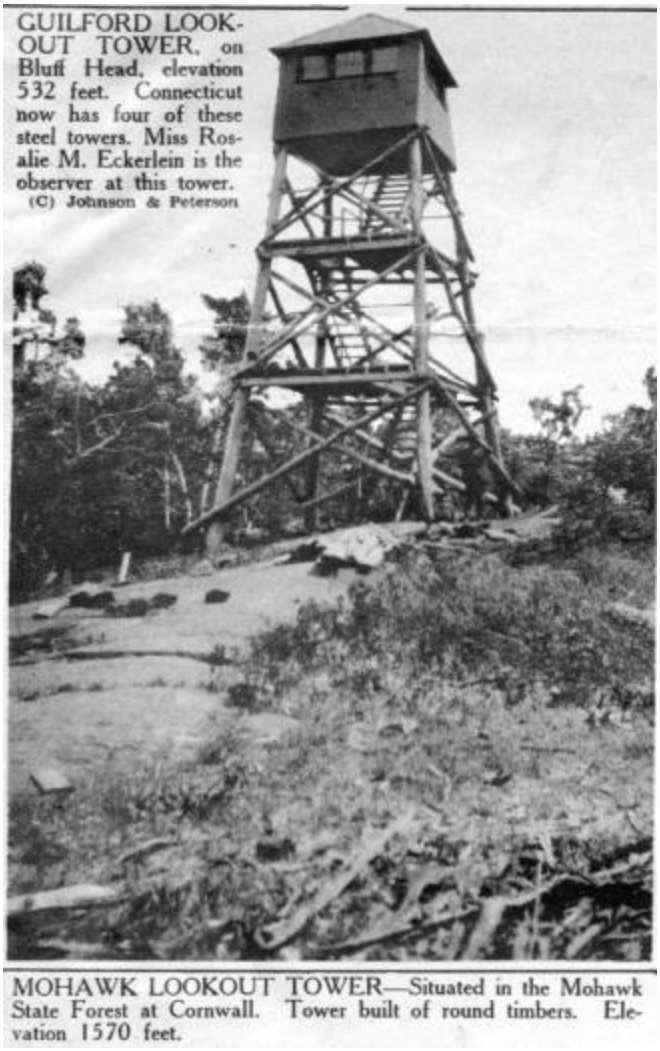

Figure 29. Fire lookout tower (Connecticut State Library collection)

ADMINISTRATION OF THE FOREST FIRE LAWS

Under the new law of 1921 the State Forester was responsible for the appointment of the forest fire wardens, who thus became state rather than town employees. With Mr. Filley's assistance I made certain changes in the appointments in January 1922, retaining those who had shown an interest in the work and replacing some who had neglected their duties. In place of Town Wardens we now had District and Deputy Wardens, the first class receiving an annual stipend of $10 for such office work as the job entailed. I had divided the state into 165 districts for this purpose. It is of interest to note that upon returning in 1921 I found a few of the original wardens still serving; in some cases a son of the original warden was serving, Wardens appointed in 1906 who were serving in 1921 included the following: A. Hale Bennett in Canterbury; Holcomb N. Jones in Clinton; Ernest N. Austin in Suffield; Walter C. Tanner in Voluntown, and Charles M. Perrin in Woodstock.

In addition to these there were 39 wardens who had been appointed by Mr. Spring in 1912 who were still serving in 1921[18]. (P97)

[18] Wardens appointed in 1912 still serving in 1921 in addition to those listed above were: A.M. Bassett of Ashford, Sherman D. Stocker of Beacon Falls, Arthur H. Doolittle of Bethany, Henry F. Kyle of Bethel, Reuben J. Keeler of Bridgewater, F.H. Dunham of (Chatham 1912) East Hampton 1921 (name of town changed), Rowland L. Cobb of Columbia, Henry J. Bouteiller of Cornwall, Charles H. Buell of Eastford, Frank H. Dibble of East Granby, John T. O'Neill of East Hartford, Charles G. Keller of Easton, William Wilson of Enfield; Frank L. Date of Franklin; John Hoolbeck of Greenwich; Irving O. Burdick: of Griswold; Edward E. Emmons of Hartland; James C. Green of Mansfield; F.S. Chamberlain Of Middlebury; W.E. Kelly of Middletown; William H. Fairchild of New Fairfield;

Insofar as funds were available, firefighting equipment was supplied to District Wardens.[(P98)] At first such equipment was very meager; one single forester pump, four pails and four wire brooms, a badge and notebook of instructions to each District Warden.


FIRE DEVASTATED—Mountain slope South of West Cornwall, showing the result of repeated fires. Much of the soil has washed away.

Figure 30. Forest destroyed by wildfire (Connecticut State Library collection)

After my experience in Vermont, the so-called "asbestos state" I was not fully prepared for the very severe fire season in the spring of 1922. There had been only 689 fires in the previous year, and the entire area burned was slightly over 20,000 acres. By contrast, weather conditions in the spring of 1922 were very favorable for fires and the woods throughout the state were full of dead and very inflammable chestnut. Wardens reported 1137 fires, which burned an estimated 83,000 acres, causing damage of nearly one-half million dollars. Individual fires of over one thousand acres occurred in Sharon, Kent, Bristol, Canton, Manchester, Columbia, Scotland, Easton, Wallingford, Ledyard and East Lyme. The largest one was that in Sharon and Salisbury. I investigated this fire personally and interviewed the warden, and often told the story in later years, about as follows: The fire started on Sunday; the warden heard about it on Monday and went to it on Tuesday. He fought the fire on Wednesday and on Thursday it rained and put the fire out.

During the spring of 1922, with the assistance of the White Memorial Foundation, a timber lookout tower was constructed by contract on the summit of Mohawk Mountain. Unfortunately it was not completed in time for the spring fire season. Otherwise the sad experience in Sharon might have been avoided. Since it was still impossible to equip the wardens adequately, nine equipment stations were established in Torrington, Simsbury, Plainville, Redding, Essex, Manchester, Windham, Putnam and East Lyme. Each station was supplied with one double forester pump, five (5) gallon cans for carrying water, a considerable number of pails, wire brooms and single foresters.[(P99)]

After the bad spring season of 1922 a conference of forest owners was called at the Capitol to consider measures which could be taken to improve the efficiency of the fire warden organization. The meeting was well attended, and many valuable suggestions were made. A resolution was adopted urging the General Assembly to appropriate $100,000 for the next biennium to provide adequate protection. At this time the annual appropriation for this purpose was only $15,000, although the State Board of Control granted an additional $10,000 to pay for the fires of 1922.

In 1923 a bulletin entitled "Forest Fires in Connecticut" was published, which analyzed the forest fires from 1910 to 1922 inclusive. This showed that an average of 2.7 per cent of the forest

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Charles P. Bushnell of Norwich; A.H. Mathewson of Plainfield; Ard Welton of Plymouth; Everett P. Barnes of Preston; Charles Fenn of Prospect; Daniel R. Warner of Redding; F.W. Churchill of Rocky Hill; Donald J. Warner of Salisbury; Louis Miller of Sharon; James M. Stocking of Simsbury; John Hunt of Somers; James McCabe of Southington; Peter Robitaille of Sprague; John M. Larned of Stafford; Thomas Ryan of Thompson; Charles S. Hurlburt of Tolland; Burr F. Beach of Trumbull; James Livingston of West Hartford; E.B. Bronson of Winchester

area of the state had been burned annually during the 13 years. Some consolation was found by dividing the period into two terms of six and seven years each. During the first period an average of 49,266 acres, or 3.3 per cent of the forest area, was burned annually, while in the second period the average was 33,503 acres, and 2.3 per cent of the forest area. At this time the railroads were responsible for more fires than any other agency. The fires for the period had been plotted on a map and the towns had been classified into three groups: those which had had over 100 fires during the thirteen year period; those which had experienced between 50 and 100 fires; and those which had had less than 50 fires. The towns in the first group were Barkhamsted, Litchfield, Thomaston, Washington, and Winchester in Litchfield County; Avon, Bristol, Canton, Enfield, Farmington, Simsbury, Southington in Hartford County, Bolton, Stafford and Vernon in Tolland County; Killingly, Plainfield, Thompson, Windham in Windham County; Monroe, Stamford, Trumbull, Wilton in Fairfield County; Naugatuck and Southbury in New Haven County; none in Middlesex County, and only Lisbon in New London County.(P100)

In order to encourage wardens to do better work, an attempt at rating was made after the 1922 season. There were 39 Districts in which there been ten or more fires during the year. The ten wardens of these districts who held their fires to the lowest average area were listed. Special mention was made of Mr. E.W. Doane, Warden of Essex, whose fires averaged 16 acres, and who kept the cost down to $4.10 per fire. The warden having the smallest area per fire was Mr. W.H. Todd of North Haven, who had 15 fires, burning an average of seven acres per fire.

In this same bulletin cooperative protective associations were described, such as those which had done good work in New Hampshire, Vermont, and several western states. An offer was made to match with State money funds raised by any association controlling 5000 acres or more and assessing its owner four cents an acre annually. The hope was expressed that these associations might eventually go further and do forestry work on their lands. In the spring of 1924 the Talcott Mountain Forest Protective Association was organized with 11,000 acres in Simsbury, Avon, West Hartford, Farmington and Bloomfield. Mr. Edson Stocking, son of James Stocking, was employed as patrolman under the general direction of Mr. James L. Goodwin.

In the same spring the Central Fairfield County Forest Protective Association was organized with 10,000 acres in Easton, Weston, Redding and Fairfield. Mr. S.E. Parker patrolled for this association in the spring seasons of 1924 and 1925. Annual meetings of fire wardens were initiated and were usually held in four or five sections of the state.(P101) At these meetings representatives of the railroads were present in order to bring about better cooperation in preventing railroad fires. In these early years the New York, New Haven and Hartford Railroad Company was represented by its Claims Agent, Mr. William Barber, a large and genial man from Harwinton. Later Mr. Shove, a fuel engineer, came as the Company was making a serious effort to reduce the number of railroad fires.

The U.S. Forest Service had recently established at Amherst, Mass. the Northeastern Forest Experiment Station of which Mr. Samuel Dana, Formerly State Forester of Maine, was director. As one of its first projects, this Station undertook a careful analysis of the fire reports of New Hampshire and Connecticut. The study of this state covered the five year period 1921 to 1925 inclusive. The report showed, among other things, that the average value of property destroyed by forest fires during this period was approximately $194,000, of which 84 per cent was standing timber and 16 per cent other property, such as buildings, improvements, and wood products.

There were no fires in the period in which the cost of suppression exceeded $1,000, and only

five fires in which it exceeded $500 to extinguish. Less than 10 men per fire were used in 53 per cent of the fires, but these fires burned only 26 per cent of the total area burned. On the other hand, more than fifty men per fire were used in only two per cent of the fires, but this two per cent accounted for 24 per cent of the area burned. More than 100 men were used on only 18 fires in the five year period.

Another step forward had been made in 1923 when the fire wardens of Litchfield County, largely through the efforts of Mr. Elliott B. Bronson, organized the Litchfield County Forest Fire Wardens Association, the first of its kind in the country.(P102) Hon. Frank M. Travis of Torrington donated a gold badge which was competed for annually by the wardens of the county. This was won by the Winsted district the first two years and by the Northfield district the third year.

Greater stress had been laid upon forest law enforcement and special patrolmen had been employed for that purpose with the result that in 1924 there were 30 convictions for violations of the Permit Law, and the following year 25 convictions. There were also convictions under other laws. In the fall of 1924 the fire hazard was so great the Governor suspended the hunting season.

An incident important in the forest fire history of the state was the famous lawsuit of Mrs. Theodate Pope Riddle vs. the New York, New Haven and Hartford Railroad Company for damages to her extensive forest in Farmington and Avon. Mrs. Riddle was a rather eccentric but benevolent wealthy lady of Farmington. She had built up this large forest property for the purpose of fulfilling her lifetime ambition of building a boys' school, which should not only give scope to her taste as an architect of some prominence, but would also enable pampered rich boys to come in contact with more fortunate boys who had been brought up to work. Consequently, when a large railroad fire burned over most of this forest in spring of 1922, it was a great blow to her. She engaged Mr. Thomas Hewes as her attorney, while Mr. Carpenter of Day, Berry and Reynolds defended the Railroad Company. Mr. Theodore Salisbury Woolsey was Mrs. Riddle's forester, and Professor Ralph Hawley was forester for the defendant. Some of Professor Hawley's testimony as to the slight damage done seemed to contradict the chapter on forest fires in the book which he and I had written, and I was called in as a witness to testify that he had agreed to the statement in the book.(P103) The result of the suit, the trial of which lasted two weeks, was, I understood, that the Railroad Company paid Mrs. Riddle about the amount they had offered to settle for. However, the publicity in connection with the case undoubtedly impressed the railroad officials with the need of using more care in preventing fires. Fortunately, other factors were working toward the same end. Several of the non-paying branches of the railroad, including the Central New England, were discontinued about this time. These were the lines on which the poorest engines had been used and which had had the worst fires. On the main line better engines were substituted and Mr. Shove, the engineer in charge, made a sincere effort to improve spark arresters and ash pans to reduce fires.

At the end of this period the following lookout towers were in operation[19]: Mt. Ochepetuck in Union operated by Mrs. Dedie B. Lawson; Dennis Hill in Norwalk; Storrs Hill operated by Miss Susan Moss; South Mountain, Bristol, operated by Mrs. William Bryce until the time of her death in January 1925; Mohawk Mountain in Cornwall operated by Warden H.J. Bouteiller; Travelers Insurance Company tower in Hartford operated by Mr. Early. A supplementary station

[19] For much of this information I am indebted to Mr. W. Foster Schreeder, State Forester, for his typewritten article on Lookout Towers, 1953

was also operated for a few years in Farmington at the outlook owned by Mr. Edward Beach. This was operated by Miss Hazel French.

Since the success of the Forest Service at this period was a cooperative venture, I take pleasure in listing a few of the fire wardens who contributed to its success: David Workman of Ridgefield,[(P104)] an enthusiastic warden, patrolman and voluminous correspondent; Ard Welton of Plymouth, who suggested; "United we boost, divided we bust"; A.P. Abbe of Windham; George S. Hull of Clinton; Charles S. Hurlburt of Tolland; A.C. Innis of New Milford; Angelo Filosi of East Lyme; William A. Spaulding of Norwalk; John D. Roberts of Meriden; H.R. Howard of Union; Elliott B. Bronson, Winsted; Ralph G. Warner of Thomaston; Hancy E. Lewis, Watertown; Oliver A. Hiscox of Woodstock; A.E. Bevans of Redding; Lincoln H. Fenn of Washington; John McGuire of Ledyard; Otto May of Glastonbury; Ralph C. Wheeler of Stonington; George Griswold of Old Lyme; C.H. Schell of Coventry.

ADMINISTRATION OF THE STATE FORESTS

At the time of the reorganization in 1921 the area of the five state forests was only 4,452 acres, the result of seventeen years of acquisition with meager appropriations. Even with the increased appropriation of $10,000 for purchase, it was considered better policy to confine the expenditures to enlarging existing forests rather than starting new ones. Under this policy 1608 acres were added to the Portland, Union, and Eastford forests purchase for $9,344 or on an average of $5.81 an acre. Largely as a result of Mr. Filley's acquaintance with Mr. Alain White in Litchfield, begun in selling him nursery stock, the White Memorial Foundation donated the Mohawk State Forest with an initial area of 1200 acres. Thus during the first year under the Commission, the total area of state forests was increased 63 percent, to 7260 acres. The origin of this Mohawk forest is rather unique. It had been gotten together by Mr. Cunningham of Litchfield for a private hunting preserve. He was rather eccentric person and entertained the feudal idea that land ownership made one a sort of king of his domain with the power to exclude all except invited guests. He built a stone tower where he sought privacy. Such a theory cannot work in a democratic community, and he was often exasperated by trespassers even though they did no damage.[(P105)] Once while in this mood he happened to meet Mr. White in the village, and asked his if he would like to buy the Mohawk tract. Mr. White asked the price and immediately accepted the offer without having any clear idea what he would do with it. He had previously given a small area on Mohawk Pond to the Park Commission as a Park, with the understanding that the YMCA and YWCA might maintain a summer camp there. It was, therefore, natural for him to give this large area as a State Forest. His only restriction was that no hunting should be allowed. In one of the early conveyances of the summit of the Mountain there is a proviso that it will revert to the grantor if liquor is sold there. Mohawk Mountain is said to derive its name from the fact that native Indians in the old days warned the tribes to the south of the approach of the dreaded Mohawks by beacon fires lighted on this high point.

It was only natural that this forest should be named Mohawk, as a Cornwall State Forest was already in existence. Since some of these forests: Portland and Eastford were already growing beyond their original town bounds, it seemed advisable to give them names of less local application. I, therefore, recommended to the Commission, which approved the suggestion, that we adopt a policy of giving Indian names to the state forests. The interval since the last scalping party was so long, no objection was raised to this policy. The Portland Forest became Meshomasic; the Eastford Forest, Natchaug; the Union Forest, Nipmuck; and the Cornwall

Forest, Housatonic.

Figure 31. The cabin at Portland State Forest circa 1920 (CAES archives).

Some of the forest plantations in the Meshomasic Forest had become so badly suppressed during the [First] World War, a small party was employed in the summer of 1922 under Mr. Samuel Hamilton, in liberation cuttings. The crew occupied the log cabin.(P106) The most important area worked on is known as the Stevens lot, for many years thereafter a show place because of the splendid growth of red pine. Mr. Joseph Synnott, who had succeeded Del Reeves as caretaker, was for a time working at Hammonasset Park, but upon his return he resumed his duties as caretaker. His brother-in-law, Mr. Charles F. Walter, as Fire Warden, had done an excellent job in protecting the forest from fire.

My first report ended with this paragraph: "*It is recommended that the General Assembly adopt the policy of acquiring 200,000 acres as rapidly as funds are available, and that a substantial beginning toward carrying out this policy be made at once by appropriating $100,000 for the next biennial period.*"

The Park and Forest Commission adopted this area as its objective.

The first planting on the Mohawk State Forest was in May 1922 under the direction of Mr. Hamilton, and in 1923 Mr. S.E. Parker of Woodbury had charge. He was a graduate of the New York State College of Forestry and later became District Forester. The trees planted at this time were large five-year red pines, but in spite of their size there was a good survival. He was assisted by Hamilton and Richard Perry. Local labor was paid $3.00 to $4.00 a day and Parker received $40.00 a month and board. The party occupied the White house, an old farmhouse which burned several years later. In the following year, Mr. William Shepard of Berlin had charge of the planting here. He was a graduate of Cornell and the Yale School of Forestry and later became Specialist in Forest Products.

In the fall of 1923 I secured an option from Mr. James Hall of West Hartland for a very desirable area including a beautiful ravine and brook, the nucleus of the Tunxis State Forest.(P107)

Later I secured an option from Mr. Charles L. Gold of Cornwall on a very desirable addition to the Housatonic Forest. This tract lay between the Cream Hill road and the railroad. In the summer of 1924 this area vas surveyed by Mr. McDowell, instructor in the Kent School, with the assistance of Edson Stocking.

It had early become evident that an extensive forest planting program on state forests could not rely upon private nurseries for planting stock. In the spring of 1924, a small nursery was started on rented land in Simsbury solely for the purpose of raising trees for planting on state land: forests and parks. The nursery started with 140,000 seedlings and was managed by Stocking.

At its annual meeting in January 1924 President White proposed to the Forestry Association

that a fund be raised through private subscription to acquire a state forest to be known as the Peoples State Forest. His idea that many people of moderate circumstances would be glad to contribute according to their means was amply justified. Publicity was gotten out stating that any one who contributed $8.00 was in truth giving an acre, since this was about the average price that the Association contemplated spending. A considerable sum was raised through the activity of Secretary Buttrick and Treasurer T. Salisbury Woolsey, assisted by Mrs. Jessie Gerard, Conservation Chairman of the Connecticut Federation of Women's Clubs. She succeeded in getting contributions from many of the Clubs for the purpose. As soon as it became evident that the plan would be a success, Mr. Stocking was assigned to the job of looking over proposed tracts to assist us in determining the best location for such a forest.(P108) Miss Agnes Bowen of Pleasant Valley secured the interest of the Barkhamsted Chamber of Commerce in urging the location in that town. Mr. Stocking and I looked over the proposed area with Miss Bowen. It was the steep ridge on the west side of the Farmington River, and as much of it had been recently burned, we determined against its selection, but liked much better the well wooded hills east of the river. It was on this trip that Miss Bowen showed us the so-called John Brown oak, which stood near the homestead of Brown's maternal grandparents, and under which he was supposed to have played as a child, if, indeed, a person of such intense nature ever played.

After Mr. Stocking had secured a few options in the proposed area, several officials of the Forestry Association, including Mr. Bristol of Ansonia, Professor Chapman, Mr. Woolsey and Mr. Buttrick inspected the area and decided that it met the requirements of a Peoples Forest.

In July of 1924, we, of the Forestry Department, were stunned by the sudden death of James Stocking. While driving from his house to Simsbury village, Mr. Stocking had crossed the track of the Central New England Railroad thousands of times. Regular passenger trains had been discontinued before this period, but as he drove absent-mindedly upon the track his car was hit by a locomotive and thrown some distance from the track. He was taken at once to the Hartford Hospital and at first it was hoped that he might recover, but it was soon evident that he had received internal injuries, and he died on July 3lst. There is an old New England expression which exactly describes James Stocking. He was "the Salt of the Earth". For integrity and an earnest desire to do right few men can equal him. He was irreplaceable, and I often thought how much easier and pleasanter my task would have been had he lived.

The Simsbury Forest was practically destroyed on April 28, 1924 by a railroad fire which burned 40 acres of plantation which had been made soon after acquisition.(P109) The damage was estimated at $1445, which sum was paid by the N.Y.N.H. & H.R.R. Co. [New York, New Haven and Hartford Railroad]. This was based upon a valuation of $57.20 an acre for an eleven-year-old plantation, and $10 an acre for sprout hard-woods.

The movement for town forests had never gained much headway in Connecticut, but the Department was encouraged in 1924 by the town of Simsbury setting aside 223 acres of the former Poor farm for this purpose. A working plan of this tract was made, some planting was done, and one cold winter's day I marked tress for cutting. It all came to nothing, as the tract was soon sold to a private owner thus further discouraging any movement for town forests.

FOREST AND WILD LIFE

Soon after I had assumed my duties as State Forester, Mr. John Titcomb came to the State as Superintendent of Fish and Game under the State Board of Fisheries and Game of which Mr.

Frederick Walcott of Norfolk was then Chairman. Mr. Titcomb and I had been associated in similar capacities in Vermont, and we always had most pleasant relations. He was a well-known authority on fish culture, and soon after taking over the position, he established the State Fish Hatchery in Burlington where there was a splendid supply of cold water. Mr. Walcott was always very close to Mr. J. Henry Roraback, State Boss of the Republican Party, and Mr. Titcomb, through long experience had become quite a politician. This policy was in contrast to mine, for I always avoided meeting Mr. Roraback, not wishing to gain favors for forestry through political deals. The result was perhaps that our progress was slower, but I was able to employ assistants on an efficiency basis wholly free from political pressure.(P110)

Mr. Titcomb soon realized that in a densely populated state like Connecticut the only way to provide public hunting was for the State to either own or rent large tracts of land. The Fish and Game Commission, therefore, began to agitate the project of securing an appropriation to purchase such hunting areas.

We were fortunate in having at that time a man at the head of the Fish and Game Commission with broad vision. Mr. Walcott, as the owner of a large forest area in Norfolk, fully understood the forestry viewpoint and realized that there was no conflict of interest between foresters and wildlife enthusiasts. He was furthermore a delightful and most friendly man. From my earliest acquaintance with him we became friends, and he often invited me to his outdoor parties in his Norfolk forest. It was, therefore, possible to suggest to him, and gain his support for a plan and to merge the forestry and game interests in the acquisition of land. The Park and Forest Commission approved such a plan and both Professor Chapman and Mr. Filley took a prominent part in working out the modus vivendi. It was finally decided to introduce a bill in the General Assembly of 1925 to establish a Forest and Wild Life Commission solely for the purpose of buying land to suit the needs of the two departments. Despite the fact that the Fish and Game Commission had only three members, while the Park and Forest Commission had seven, it was decided to form the new Forest and Wild Life Commission by combining these two commissions. As far as I recall, the discrepancy in numbers never mitigated against the fish and game interests. The bill was passed, and the Commission was so organized, and Mr. Walcott became the first chairman. An appropriation of $150,000 for the biennium was made available to this Commission for the acquisition of land suitable for either, or for both purposes.(P111) This was another important stepping stone in the forestry movement. It was a device which no other State has employed so far as I know, for it left both departments free to develop their own interests instead of being combined to the detriment of both, as in Massachusetts and other states.

The area of the state forests ay this time was 11,473 acres. It had been acquired at an average cost to the State of $4.40 an acre. The Mohawk and Peoples Forests, both gifts to the State, reduced the average cost.

CHAPTER VII. EXPANSION OF STATE FORESTS UNDER FOREST AND WILD LIFE COMMISSION 1925 – 1929

THE COMMISSIONERS

(P112)In January 1925 the Park and Forest Commission moved into a brick house at 255 Capitol Avenue adjoining the State Library property on the west. Most of the meetings of the Commission Forests and Wild Life were held quarterly here. From its organization in 1925 until May 1929 Mr. Frederick Walcott was President and Professor H.H. Chapman, Vice-President of this Commission. In May 1929 Mr. Walcott resigned to take up his duties as United States Senator. Professor Chapman became President of this Commission and Mr. Karl Kulle of Suffield, Vice President. Mr. Kulle was a member of the Board of Fisheries and Game.

On July 1, 1925 Mr. Elliott B. Bronson, a retired lumberman and longtime fire warden of Winchester, was appointed Field Agent of the Commission on Forests and Wild [Life], and Mr. W. Foster Schreeder, a graduate of the New York State College of Forestry, was appointed Forest Engineer to survey the state forests, a position similar to the one formerly held by Mr. Ross. Professor Chapman had known of Mr. Schreeder's work in Illinois. Mr. Bronson had been a member of the Appropriations Committee in the General Assembly and was instrumental in getting the appropriation for the Commission. While the practice of rewarding legislators with political plums is one of the most unfortunate customs of our representative government, in this case it worked well. Mr. Bronson was an old friend of Mr. Walcott, and he was selected primarily for his experience in buying woodland. He was an interesting man, and when dressed in full regalia for his job in leggings and equipped with hatchet, trumpet, compass, etc. he was a picturesque character.(P113) He got enjoyment in telling people that he was in charge of the wild life of the state, implying that it was not confined to four footed animals. He was a shrewd. Yankee trader and bought land for the State at as low prices as he would for himself.

Mr. George Parker resigned from the Park and Forest Commission an April 1, 1923, and Mr. Harris Whittemore of Naugatuck was appointed in his place. By purchasing Meigs Point and holding it until the State could buy it, he made it possible for the State to acquire this very valuable forest property on both sides of the Naugatuck River just north of Beacon Falls. He had indicated his intention of giving this property to the State for a forest. Unfortunately he died suddenly in 1927. Although his family later carried out his wishes in regard to this forest, his death was a great loss to the Commission. His genial personality and his influence as a wealthy manufacturer were great assets to the Commission. Governor Trumbull appointed his son, Mr. Harris Whittemore, Jr., to his place.

Mr. Fayette L. Wright, who had moved to Florida, resigned from the Commission May 3, 1926, and his place was filled by the appointment of Mr. Arthur Peale of Norwich. He was an enthusiast in local Indian history, and it was largely through his efforts that the State acquired the Fort Shantok Park south of Norwich with its Indian fort and cemetery.

FORESTRY PERSONNEL

Although Mr. Schreeder was first appointed as an employee of the Commission on Forests and Wild Life, this was changed on July 1, 1927 when he became Forest Engineer for the Forestry Department in charge of surveying, type mapping and timber estimating on the state forests.(P114) With the more adequate appropriation for administration in 1925, it became possible at last to organize an efficient department. Mr. Sterling Parker, who had served as patrolman, was appointed Forester in charge of the Housatonic and Mohawk Forests. He made his first report as District Forester in 1927

At this same time Mr. C. Huntington Lathrop[20] of Lebanon was appointed Assistant State Fire Warden to take the place vacated by the death of Mr. Stocking. He also had served as a patrolman since March 1, 1924. In making this appointment I realized that power pumps were to play an increasing part in fire control. Mr. Lathrop had marked mechanical ability in which I was entirely lacking. Unfortunately, as a young man, he had served a term in the General Assembly which had convinced him that he was a politician. He also had general charge of the Natchaug and Nipmuck State Forests at this time.

Upon the resignation of Mr. Edson Stocking as patrolman for the Talcott Mt. Forest Protective Association to become Superintendent of the James L. Goodwin forest in Hampton, his younger brother, Milton Stocking, was appointed to have general supervision of fire work in the western district and to assist Mr. Schreeder in surveying.

On December 1, 1927 Mr. Parker was promoted to District Forester for the entire western part of the state with a rented office in Torrington. He had previously worked from his home in Woodbury.

By August 1, 1928 three rangers were serving under Mr. Parker; George Douglass, in charge of Housatonic and Mohawk Forests; Milton Stocking in charge of Simsbury, Peoples, American Legion and Nepaug Forests; and Lyle G. Griswold in charge of Pootatuck, Mattatuck and Tunxis Forests.(P115)

Mr. George Turner, a graduate of the University of Maine, was District Forester for the Central District with headquarters at Cockaponset. He was assisted by Ranger Joseph Synnott in charge of Meshomasic Forest. In March 1927 Mr. Robert J. Coughlin, who had attended the New York State College of Forestry, was employed as assistant surveyor and draftsman.

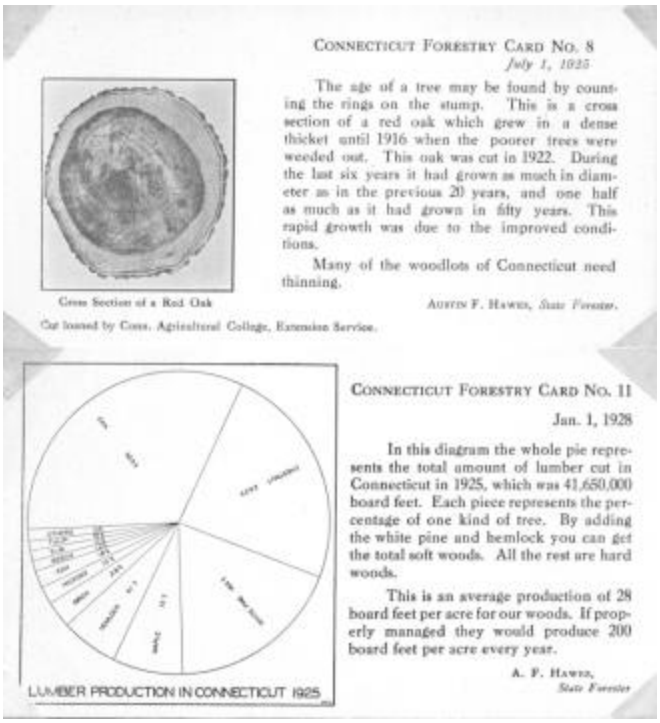
PUBLIC RELATIONS

In June 1925 “The Wooden Nutmeg” appeared in a new cover designed by Mrs. Buttrick which pointed to the contrast between a burned and well managed forest. From 1926 on the Nutmeg was printed.

The second New England Forestry Congress was held in Springfield on December 10 and 11, 1925. Dr. C.A. Schenck spoke on “What Forestry Means to America”; Professor R.T. Fisher on “Trends in Lumber Market”; Mrs. Jessie Gerard on “Women’s Part in the Peoples Forest”; Professor H.H. Chapman on “Forest Taxation”; John W. Titcomb on “Forests and Brooks and Bird Cover”; and A.F. Hawes on “The Fire Situation in New England”.

[20] Mr. Lathrop died January 30, 1953 at the age of sixty.

The practice was instituted of appointing Forest Guides from a list of boys nominated by Scout Executives. Each guide pledged himself to protect forest trees, plants, birds and harmless animals. A badge bearing a picture of the Charter Oak was furnished each guide. In 1926, 249 of these guides were appointed.



CONNECTICUT FORESTRY CARD NO. 8

July 1, 1925

The age of a tree may be found by counting the rings on the stump. This is a cross section of a red oak which grew in a dense thicket until 1916 when the poorer trees were weeded out. This oak was cut in 1922. During the last six years it had grown as much in diameter as in the previous 20 years, and one half as much as it had grown in fifty years. This rapid growth was due to the improved conditions.

Many of the woodlots of Connecticut need thinning.

Cross Section of a Red Oak

AUSTIN F. HAWES, *State Forester.*

Cut loaned by Conn. Agricultural College, Extension Service.

CONNECTICUT FORESTRY CARD NO. 11

Jan. 1, 1928

In this diagram the whole pie represents the total amount of lumber cut in Connecticut in 1925, which was 41,650,000 board feet. Each piece represents the percentage of one kind of tree. By adding the white pine and hemlock you can get the total soft woods. All the rest are hard woods.

This is an average production of 28 board feet per acre for our woods. If properly managed they would produce 200 board feet per acre every year.

A. F. HAWES,
State Forester

LUMBER PRODUCTION IN CONNECTICUT 1925

Figure 32. Examples of forestry information cards (Connecticut State Library collection)

As a further measure to interest young people in forestry, a series of school planting bees was arranged by Mr. Russell Lund who was in charge of nature study in the State Board of Education. On April 30, 1926 some thirty boys and girls of New Hartford, Pleasant Valley and Riverton planted 1000 Scotch pine near the north end of the Peoples Forest. Similar bees were held in Farmington on Mrs. Riddle's land; in Washington, Lebanon and Portland.

In March 1927 a balopticon [glass slide projector] was acquired.(P116) This machine showed a considerable number of lantern slides in rotation and was extensively used at fairs, schools and other public places.

At this time radio broadcasting began to be a useful help in taking the forest message to the public. On April 22nd I gave a broadcast over WTIC [1080 AM]. Of course, the usual illustrated lectures were continued before women's organizations, granges, and men's luncheon groups. At one time, Mr. H.W. Wheeler, Chief Lecturer of the U.S. Forest Service, gave a series of lectures in the state.

Another medium of arousing public interest was the Big Tree Contest which was well advertised throughout the state. People were invited to send in the measurement of the largest trees in their neighborhood. These were measured and prizes awarded. Private donations, largely from the White Memorial Foundation, made it possible to spend money for such purposes

The first prize was awarded for an immense red oak in West Ashford. Its circumference near the ground was 32 feet, and at the breast height 21 feet. It**s h**orizontal branch spread was 135 feet.

The second prize was awarded for the famous White oak at Gales Ferry, at that time owned by Mr. Charles B. Graves. It had a circumference of 19 1/2 feet at breast height, and a branch spread of 132 feet. These were undoubtedly the largest oaks in the state. Later a very large chestnut oak was reported from Suffield.

Although the famous Wethersfield Elm was not entered in this contest, it seemed desirable to measurable it, and it was fortunate that it was carefully measured at this time, for it soon after began to deteriorate. This had circumference of 29 feet at breast height, a height of 102 feet, and branch spread of 146 feet.

Figure 33. The Wethersfield Elm (Connecticut State Library collection)

The third New England Forestry Congress was held at the Hotel Bond in Hartford January 29 to February 2, 1929. Among the speakers were Mr. C.R. Tillotson, who was at that time the United States Forest Service representative in New England;(P117) Dr. H.B. Pierson of the Maine Forestry Department; Mr. H.R. Lewis, Commissioner of Agriculture for Rhode Island; Mr. E.C. Hirst, former State Forester of New Hampshire; Mr. Julian Rothery; Dean Henry S. Graves; and A.F. Hawes.

In the fall of 1925 I attended the meeting of the Association of State Foresters, which was held in California with President M.B. Pratt, State Forester of that state. It goes without saying that the trip over the Redwood Highway was a revelation. It was an added pleasure to be able to take much of this trip in company with Clifford Pettis and William Howard of the New York Forestry Department. A year later Mr. Pettis died. He had made important contribution to the science of forest nurseries.

In 1926 the Association was guest of President F.W. Besley in Maryland. Mr. Besley had developed the most paternalistic method in the country of handling private woodlands, and the inspection of these woodlots was very instructive.

In 1927 I was President and entertained the Association. The meeting started in the State Capitol with words of welcome by Governor John Trumbull. We then visited the Rainbow plantations and Meshomasic Forest. The red pine plantation on the Stevens lot in Meshomasic Forest was the first point visited. Ranger Synnott added entertainment by displaying a large number of live rattlesnakes he had collected. Some time was spent in the forests of the New Haven Water Company, where Professor Ralph Hawley demonstrated the practices adopted. A banquet was held in New Haven with Dean Graves as toastmaster. Col. William B. Greeley was among the speakers.

I did not attend the 1928 meeting in Ohio, but in 1929 an interesting meeting was held in North Carolina with J.S. Holmes, President. The high point was the summit of Mt. Mitchell.(P118)

Although it had little bearing upon Connecticut, it may be of interest to note that I attended a Forest Products Conference in Washington during the administration of President Coolidge at

which he delivered the principal address. It was evident that the paper had been written in the Forest Service. The President read it without any emphasis, scarcely took his eyes off the paper, and did not insert a single word of his own. It would be impossible to imagine such Presidents as Theodore or Franklin Roosevelt taking such parts without showing their own interest in the subject.

It may be fitting at this time to say a word about Mr. John H. Trumbull of Plainville, who was Governor during this period, 1925 to 1931, and was one of the best governors I have known. He seemed to assume that the various departments of the state government were interested in doing their work well and did not try to make drastic changes. While his chief interest was in aviation, he was also a sportsman and, therefore, interested in wildlife and indirectly in forestry. Several times I attended outdoor parties given by Senator Walcott in his extensive forest in Norfolk where Governor Trumbull was present. One of these, a fishing-through-the-ice party took place while President Coolidge's son was courting Governor Trumbull's daughter and they were also present. The social standing of Senator Walcott and his wide connections, both in the state and nation, were a great asset to the conservation branches of the state government. Governor Trumbull appointed Mr. William Hall as Finance Commissioner in place of the three man commission the State had had. Mr. Hall was born in Vermont, the son of a lumberman, and was moderately friendly to forestry, but his whole idea of economy was to keep expenses down, which proved to be bad policy, especially in regard to state institutions.(P119)

Early in 1926 the first "Forest Workers Conference" was held in the Hartford office. This included all men in the state employed in forestry work. The second meeting was held in May in the forest of the New Haven Water Company under the direction of Professor Hawley. For some years these meetings continued and may be considered a forerunner of those held by State Forester Schreeder

On November 18 and 19, 1926 an important New England Conference was held in Hartford under the auspices of the New England Council. This was attended by some 1200 delegates from all over New England. Professor A.T. Fisher spoke on forest industries, and I outlined a Forest Policy for the Region, which was published by the Council. However, the Council never took any active steps to advance forestry.

In May, 1929, Mr. Turner, Mr. Buttrick and I attended the Ninth Annual Meeting, National Conference on State Parks", Mr. Buttrick on " The Relation of State Parks, Forests and Game", and I on "Recreation and State Forests".

In these various ways forestry was kept before the public. Mr. E. Kent Hubbard, President of the Connecticut Manufacturers Association, once told me that the Forestry Department was the best publicized department in the state government. Reporters of both newspapers regularly called at the office. Other employees were encouraged to give out items of local interest.

A red card depicting a wolf as a fire demon proved very popular with children and was distributed in large numbers.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION AND ARBORICULTURE

The Agricultural Experiment Station Report of 1900 contained a comprehensive report on "The Protection of Shade Trees" by Dr. E.H. Jenkins and W.E. Britton.(P120) It emphasized the causes of the poor condition of street trees in the city of Hew Haven and made recommendations

for proper spraying, feeding and replacement. It is interesting to note that a great many trees at this time had been injured by the biting of horses left standing at the curbstone. About this time so-called “Tree Surgery” was growing in popularity and people were spending money in some cases for worthless work. Some of the more reliable of these tree men, in cooperation with the Experiment Station succeeded in getting the General Assembly of 1919 to pass a law requiring that all tree men doing work by contract must obtain a license, granted only after passing a comprehensive examination. The Act named the Botanist, the Entomologist, and the Forester of the Station as the Examining Board. This was the first law passed in United States to regulate the operations of tree surgeons.

In 1922, the Connecticut Tree Protective Association, a body interested in the improvement of shade and ornamental trees, was organized with W.O. Filley as Secretary-Treasurer.

In 1924, the first meeting of what was to become the National Shade Tree Conference, was held in Stamford with W.E. Britton, State Entomologist as President; and W.O. Filley as Secretary-Treasurer. This conference in Stamford was attended by thirty-six people.

The Station started in 1925 to make a study of the Forest soils of the state, which was continued until 1930. This work was under Mr. Henry Hicock in cooperation with the Soils Department. Also in 1928 Mr. Hicock undertook comprehensive studies in wood preservation.

SHADE TREE INSPECTOR

In my report of 1926 I mentioned that the Tree Warden Law was more or less inoperative and suggested that the State Park and Forest Commission be given supervision of tree wardens. Such a law was passed and the responsibility was given by the Commission to the State Parks branch, which employed Mr. Allen B. Cook as Shade Tree Inspector.[(P121)] He had been in charge of the State Farm for Women in Niantic, and was at one time Master of the State Grange. Much of his time, however, was taken up in assisting Mr. Arthur Parker with work on the state parks.

FORESTRY EXTENSION

In 1914 Congress had passed the Smith-Lever Act, which provided for extension work in agriculture, an enlargement of the pioneer work which Dr. Knapp had done in the South. A few states had undertaken forestry extension under this Act, and in 1917 when United States entered the First World War, I was employed as Extension Forester for the northern States in a position analogous to that held by Wilbur R. Mattoon in the south. This work was interrupted by the War, and I never returned to it.

The Clarke-McNary Act was passed by Congress in 1924. A section of this Act took over and enlarged the cooperative work of the U.S. Forest Service with the various states in fire prevention and control, which had been initiated under the Weeks Act of 1911. Section 5 of this Act provided for extension work in forestry. Through the influence of the Land Grant Colleges the Secretary of Agriculture decided that this work should be carried on through the Agricultural Extension Services of the various states. The leading argument for this setup was that the County Agricultural Agents of the Extension Services would make the contacts for the Extension Forester. It was, in my opinion, an unfortunate decision, because many state foresters were already doing work of this nature and this setup led to duplication of effort and, in some cases, in

friction between the State Forester and the Extension Service. The County Agents have always been overburdened with projects and, except in rare instance, were not particularly helpful in pushing forestry extension. These arguments do not apply to Connecticut so much as to some other states as our relations have always been friendly. The State Forester early entered into an agreement of understanding with the Extension Director which provided that the Extension Forester would teach such subject matter as was approved by the State Forester.(P122)

The first Extension Forester of Connecticut was Mr. Alfred A. Dopple who served from January 1926 to August 1927. He devoted half of his time to teaching at the college and half time to extension work. He was succeeded by Mr. Joseph A, Gibbs, who served in the same way from November 1927 to May 1934. He cooperated with Mr. Henry Hicock of the Agricultural Experiment Station in demonstrating proper methods of treating fence posts. Also at the several forestry meetings which he held in the woods in various parts of the state he introduced a feature of having wood chopping contests. This proved popular so that the meetings were very well attended. Unfortunately, those who came to chop showed little interest in the more instructive side of the meetings. Professor Moss continued to head up the forestry teaching at the Agricultural College, but both Mr. Dopple and Mr. Gibbs spent part of their time teaching on the campus.

USE OF LUMBER AND WOOD IN CONNECTICUT

In the Report of 1928 I pointed out that there was no longer sufficient danger from forest fires, except in certain hazardous areas, to discourage the practice of forestry on the part of private owners. In order to foster better private practice, a detailed study of the use of lumber and wood in the state was made. Mr. Elmer D. Fletcher, a forester of wide experience in northern New England, was engaged to make this study and the results were published in 1928 in bulletin entitled “The Use of Lumber and Wood in Connecticut”. This was illustrated with several informative charts. Figure 1 showed at a glance the shift which had taken place in the population of the state between 1810 and 1910. The 84 upland towns which formerly had 48 per cent of the population had only 10.7 per cent at the latter date while the 84 lowland towns had increased from 52 per cent to 89.3 per cent.(P123) Fig. 2 showed the lumber production of the state for 1925 when chestnut still made up 24 per cent of the total cut. Oak amounted to 32.5 per cent; white pine 18.6 per cent; maple 7.6 per cent and hemlock 6.1 per cent. Other species made up the balance. Fig. 3 showed that lumber production in Connecticut reached its maximum in 1909 when 420 sawmills made 168,371,000 board feet of lumber. By 1925 there were only 128 mills in operation with a production of slightly over 40 million board feet. During the period since the chestnut blight struck the state, from 1904 to 1925, about 842 million feet of chestnut had been cut. Fig. 4 showed the sources of Connecticut’s lumber supplies: 20 per cent from the northeastern states; 40 per cent each from the southern and Pacific Coast states.

Even at this time there had been an appreciable advance in lumber prices. Native oak lumber which had sold for $19.40 per thousand feet in 1899 sold for $35.50 in 1918. White pine, which sold for $11.80 in 1899, reached a peak of $35.80 in 1920. Mr. Fletcher estimated that 40 per cent of the softwood lumber used in the state went into containers used by our manufacturers. Only a small part of this was supplied by forests in the state, but most of it came from other sections of New England; but some of it came from Canada and the West. The brass and textile industries of the state used about 40 million board feet of lumber for these purposes. One large brass company used 6 1/2 million board feet, mostly of Ponderosa pine from Montana. All of this

kind of lumber could, of course, be grown in the state. The increased use of veneers and plywood indicated another kind of products which our hardwoods could produce if left to maturity. Mr. Fletcher also pointed out the advantages of favoring such trees as red oak, white ash and hickory because of their bending quality.(P124) In this way the bulletin considered each industry and all species of trees and indicated the possibilities for forestry in such an industrial state, and also the need of permanent timber supply upon which new industries could rely. It was Mr. Fletcher's contention that each industry should have a sufficient working circle from which it could obtain permanent supplies if the forests were well managed. He believed it would be advantageous to the forest owners of the state if a pulp mill were established in the state, and considerable time was devoted to meetings with various organizations in an effort to get such an industry established. One of the most serious obstacles was the question of an adequate water supply.

FOREST TAXATION

The forest tax law which had been passed in 1913 had been a disappoint[ment] so far as inducing land owners to practice forestry. The underlying principle of this law was that forest owner could have his land especially classified by the state forester; that the valuation must be distributed by the local assessors upon land and tree cover, and thereafter this valuation could not be increased for fifty years; that said property should be taxed at a local rate, but not to exceed ten mills in any case. Furthermore, the material removed was subject to a graduated yield tax.

In 1929 the General Assembly passed another forest tax law drawn up by the Connecticut Chamber of Commerce Forestry Committee. Mr. Christopher Gallup had served as chairman of this committee and State Tax Commissioner Blodgett, Professor H.H. Chapman and I had served with him. Chapter 179 of the Public Acts of 1929 allowed assessors to increase the value of classified land from time to time, but all tree growth on such classified land was exempt from taxation.(P125) Unlike the old law there was no provision for a yield tax. The passage of this law did not repeal the old one. Fourteen certificates of classification were issued the first year covering 2,022 acres.

In order to offset any local opposition to state forests on the part of towns a law had been passed In 1925 providing that the State should make a grant to the towns in lieu of taxes on state forest land. It was the intent of the law that this grant should be determined by the State Tax Commissioner based upon the assessed value of similar land in the town. A subsequent tax commissioner made a more liberal interpretation of the law. As of October 1, 1928 the state grants on 40,671 acres valued at $280,416 amounted to $6,742.

CONNECTICUT FORESTRY ASSOCIATION

At the suggestion of Mr. Buttrick the name of the Forestry Association was changed in 1928 to Forest and Park Association to indicate that it had broader interests. In some ways the change proved unfortunate since there has always been much confusion in the public mind between this private organization and the State Commission. At the annual meeting Dean Henry S. Graves was elected President; T.S. Woolsey, Vice President; and C.H. Veeder, Treasurer.

The spring meeting of the Association in 1925 was held in cooperation with the Fairfield County Planning Association of which Mr. Samuel Sanford of Redding was chairman; at Laddins Rock a large, unspoiled wooded area in Stamford just south of the Boston Post Road.

Hon. Schyler Merritt spoke on the part forests have played in the development of individuality in the American people. It proved impossible to save this last remnant of mature forest in this section, as land values had become prohibitive. However, an important result of this meeting was the interest of Mrs. Helen Kitchel of Old Greenwich in forestry.(P126) She became a strong supporter in the General Assembly and later as a director of the Association, and eventually gave a valuable forest in Colebrook to the State.

At the fall meeting held October 10 at the Avon Old Farms School, Mrs. John Wallace Riddle, the builder, told about the school. Other speakers were Mr. Benjamin Southwick, County Agent for Hartford County, Mr. B.M. Ellis, Director of Extension, and Col. T.S. Woolsey. Professor James Toumey presided.

The 31st annual meeting was held early in 1926 at Sage Hall [Yale]. The subject of shade trees received special attention. Among the speakers were F.W. Besley, State Forester of Maryland; Philip Ayres, Secretary of the Society for the Preservation of the White Mountains; Professor Wesley R. Coe of Peabody Museum; Frederick Walcott, Dean Graves and A.F. Hawes. The meeting was saddened by the death of our long time corresponding secretary, Miss Mary Winslow, daughter of the founder. She had been a faithful attendant at meetings for thirty years.

Treasurer Curtis H. Veeder, prominent inventor and manufacturer, who was treasurer of the Association from 1925 to 1929, took a keen interest in the affairs of the Association, especially in the acquisition of the Peoples Forest. He greatly enjoyed walking and explored portions of this forest, discovering the twin glacial boulders, which we later named for him. In some of the walks which I took with him he discussed his plan for leaving his Talcott Mt. Forest to the State and at one time brought his lawyer to my office to discuss the wording of his will.

The fall meeting of the Association was held October 2, 1926 on the Meshomasic Forest. After the talks an auto ride was taken to the old Cobalt Mine and hemlock ravine, which had been recently acquired. On January 28-29, 1927 a joint Meeting of the American Forestry Association was held with the Connecticut Forestry Association at the New Haven Lawn Club with an attendance of 400.(P127) The membership had now reached 1292. Speakers included George D. Pratt, President of the American Forestry Association; President Emeritus Arthur Hadley of Yale; Professor R.C. Bryant, and Mrs. Gerard. For a member of years office space had been provided at the Yale School of Forestry but larger quarters were now needed, as Mr. Buttrick had employed Miss Spencer as stenographer. Through the generosity of Mr. Edward M. Bradley the Association enjoyed attractive free office space at 215 Church Street for nearly a decade. At this time the Association took an active part in the anti-billboard campaign, which was led by Mrs. Helen Kitchel in the General Assembly.

One of the most successful meetings of the Association was that held on February 4, 1928 in the Mattatuck Historical Association Hall in Waterbury. It was at this time that it was voted to change the name of the Forestry Association to the Forest and Park Association.

ACQUISITION AND ADMINISTRATION OF STATE FORESTS

While I still had charge of land acquisition, I had obtained for $4.00 an acre an option on a large tract of approximately 3000 acres on Sharon Mountain from the defunct Salisbury Iron Company. It so happened that the Fish and Game Club of which Mr. J. Henry Roraback was a member, had hunting rights on the tract for a period of several years. Mr. Schreeder, with a small

party living in the old hotel at Lime Rock, had made good progress in surveying the tract when it developed that Mr. Roraback was bringing pressure through Mr. Walcott, President of the Commission on Forests and Wild Life, against the acquisition of this tract by the State. Fortunately Professor Chapman and Mr. Filley were able to convince Mr. Walcott that it was just such tracts that we needed.(P128) Evidently he persuaded Mr. Roraback to withdraw his opposition, for the tract was purchased. This was the only time that Mr. Roraback ever interfered with the forestry work.

On March 1, 1926 I published the first of a series of pocket bulletins on the state forests. This shows that the area of state forests had been more doubled in the first eight months under the new commission, the area being at this time 24,228 acres. Two new forests had been started: Cockaponset with an area of 4365 acres in Haddam and Killingworth and Nehantic in East Lyme with an area of 380 acres. A few miles from Mohawk Mountain a tract of 315 acres near Spectacle Ponds in Kent had been purchased, and for several years was administered as part of the Mohawk Forest.

The point was brought out in this bulletin that Connecticut consumed annually at this time 350 million board feet of lumber, while our forests were only producing about 65 million feet a year. Furthermore, only 28 per cent of the amount cut was softwood whereas of the lumber used in the state about 80 per cent was softwood. The need of increasing the production of softwoods was evident. The theory underlying the management of state forests under my administration was that the State should raise large and high quality dimension timber which required a long period to grow, and which, therefore, private owners could not be expected to produce. A tentative rotation of 100 years was selected for the hardwoods with the idea that this might be altered for different species and sites.

One of the first purchases made by Mr. Bronson was a large wooded area south of Middletown in Middlesex County, and named Cockaponset. Another acquisition which was entirely due to Mr. Bronson's ability is the Pootatuck in New Fairfield. At this time the Connecticut Light and Power Company was buying land in the vicinity of Squantz Pond, and it was a real achievement that Mr. Bronson was successful in buying nearly 1000 acres here within his limit of $10 an acre in competition with such a wealthy company.(P129) It proved to be a very picturesque tract, and the only considerable area in Fairfield County available at prices suitable for forest investment.

It was about this time that Mr. John Wadhams, former State Treasurer, gave a family woodlot as an addition to the Mohawk Forest. He had taken part in the exercises at the Peoples Forest pageant.

Another forest which owes its inception to this pageant was the Mattatuck. Mr. Harley Roberts, Latin Master at the Taft School in Watertown, had been present at this pageant and was impressed with the possibility of acquiring a similar forest on the hills bordering the Naugatuck River between Thomaston and Waterbury. During the World War he had considerable success in selling war bonds, and later had raised money for the Connecticut Juniors Republic School for Boys. He came to my office with his proposition of raising funds for a Black Rock Forest, and as it happened that the Commission on Forests and Wild Life was then in session, I introduced him to the Commissioners, who were immediately favorable to his plans. Mr. Turner saw that the area around Black Rock Pond was well suited for recreation. It was, therefore, decided to secure that for a Park and the remaining area for forest. At first this forest was called the Naugatuck, but

the name of this one was changed to Mattatuck. Several people and companies contributed land or money to buy land. Among these was Mr. Fred Chase, President of the Chase Brass Company of Waterbury. In making his gift, the Brass Company reserved all rights for power lines, but Mr. Chase inserted a proviso that such lines should be cut under the direction of the state forester.(P130) This always seemed to me to a political gesture, for the only way to establish a power line is evidently to clear-cut the strip it is going through.

The establishment of the Nepaug Forest was at the request of Superintendent Titcomb primarily for the protection of the State Fish Hatchery in Burlington.

Among the earliest land gifts to the Peoples Forest were 90 acres from the Landers, Frary & Clark Company; 67 acres from Mr. James L. Goodwin of Hartford, and 20 acres from the Kiwanis Clubs of the State. Other organization which later contributed were the Federation of Women's Clubs; several chapters of the Daughters of the American Revolution; and the State Grange. Many individuals also contributed money to the Connecticut Forestry Association for the purpose.

At Mr. Bronson's suggestion, and largely through the efforts of his son-in-law, Mr. Page Seaton, at that time Commander of the American Legion in Connecticut, that organization raised a considerable fund for the purchase of the forest west of the Farmington River between Pleasant Valley and Riverton. On July 16, 1927 this area was presented to the State as the American Legion Forest by Commander Kenneth F. Cramer, later General Cramer. It was accepted for the State by Hon. Frederick Walcott, President of the Commission on Forests and Wild Life. Speeches were made by Messrs. Titcomb, Hawes, Seaton, Bronson and Buttrick

In the further acquisitions in the Tunxis Forest, Mr. David Gaines was most helpful. Having been town clerk and postmaster for many years, Mr. Gaines was unusually familiar with the history of every lot in Hartland. Always interested in the welfare of his town, in which he had spent his life, he early became convinced that a large state forest would be a great asset to the town. Mr. Bronson worked very closely with him in building the Tunxis Forest.(P131)

When the second edition of the State Forest bulletin was published August 1, 1928, the area of the state forests had been increased to 39,662 acres. Four new forests had been started: Pootatuck, Nepaug, Mattatuck and American Legion.

The General Assembly of 1925 had appropriated $5,000 for a state nursery for the purpose of raising trees to be planted on state land. Besides the desirability of increasing the percentage of softwoods in the state, there was always more interest in planting than in other phases of forestry. This was often indicated in the Appropriations Committee of the General Assembly. One of the members of the Board of Fisheries and Game, Mr. Wheeler of Bridgeport, was continually urging the importance of planting. The planting program was, therefore, enlarged from 70,000 trees planted on state forests in 1925 to 488,000 planted in 1928. Altogether 1,117,000 trees were planted on state forests between 1922 and 1928. A considerable quantity of trees was also distributed from the nursery to be planted on state parks and institutional grounds. A summary made in 1929 of all the forest planting which had been done in the state during approximately twenty years was 16,600 acres, of which 1,690 acres were in state forests and 4,725 acres belonging to Water and Power Companies. The balance was on private holdings. Of course, some of these areas had been destroyed by fire or had been suppressed for lack of care.

With the exception of the Mohawk and Mattatuck Forests, which had been donated as

wildlife sanctuaries, about 34,000 acres of the state forests were open for public hunting.

On April 1, 1929 a third edition of the State Forest bulletin was published, at which time the state forests had total area of 44,836 acres, including a newly established forest, the Pachaug on the Rhode Island border.(P132) As an aid to the recreational use of the state forests, seventy-five miles of wood roads had been cleaned out for hiking and as a fire protective measure. The state forests had been effectively protected from fire as indicated by the fact that in 1927 only 100 acres of the total area, or three-tenths of one per cent had been burned.

The area of state forests on April 1, 1929 was as follows:

Housatonic	6,514	acres	Tunxis	4,282	acres
Mohawk	2,908	acres	Meshomasic	3,644	acres
Peoples	1,419	acres	Cockaponset	7,635	acres
American Legion	429	acres	Nehantic	810	acres
Nepaug	1,415	acres	Nipmuck	2,530	acres
Simsbury	130	acres	Natchaug	5,281	acres
Pootatuck	960	acres	Pachaug	4,510	acres
Mattatuck	2,369	acres	Total	44,836	acres

The scale of maps first suggested by Mr. Turner, one inch equals 400 feet, proved to be large for the extensive areas of state forests and was soon changed to 1000 feet to the inch, which scale has been continued up to the present time (1953). By the end of 1929, 33,579 acres or 71 per cent of the 49,858 acres of state forests owned at that time had been surveyed. In1926 Mr. Schreeder was assisted in type mapping by Mr. Ivan Mardasheff, a Russian forester, and by the end of 1929 he had completed the type mapping of 26,474 acres or 53 per cent of the total area. These figures indicate very good progress considering the rapid rate of acquisition between 1925 and 1929. Good type maps are essential for systematic forest management. At the same time the forests were divided into blocks and compartments, a block being a separated large area of a forest, and a compartment a subdivision of a block usually bounded by natural features such as roads, brooks or trails.

FIRE PREVENTION AND CONTROL

On June 24, 1926 a statewide conference on Fire Prevention and Control was held in the State Capitol as a result of the disastrous fires of the preceding months.(P133) There had been 646 fires in three months which had burned a total of 22,000 acres, an average of 244 acres per day and of 130 acres per town. One of these fires had burned 2,000 acres or more on the Natchaug State Forest. Obviously this record was much better than that of 1915 or 1922, but it was still far from satisfactory. This conference was well attended. The Hon. Lucius F. Robinson, Chairman of the State Park and Forest Commission presided. Papers were read Professor A.E. Moss of the Connecticut Agricultural College; Mr. Thomas Hawes; Mr. Philip L. Buttrick, Secretary of the Connecticut Forestry Association; Mr. Elliott B. Bronson; and Mr. W.O. Filley. Mr. Leonard M. Tarr, in charge of the U.S. Weather Bureau Station at New Haven, took part in the discussion. He had already initiated fire weather warnings which later came to play such a large part in reducing the fire damage.

The Resolutions Committee of this Conference, consisting of Philip Buttrick; Ard Welton, Secretary of the State Grange; M.B. Bradley, Representative from Beacon Falls, and E.W. Doane, Fire Warden Essex, made the following recommendations which were adopted by Conference.

1. Greatly increased appropriations for fire protection work, amounting to not less than $50,000 a year. At this time the biennial appropriation for this purpose was $30,000.
2. Better coordination between local fire companies and the state forest fire warden system.
3. Fuller studies in the relation of weather to forest fires.
4. Fuller studies of the relation between grass burning and forest fires
5. Perfection of methods for controlling railroad fires.

By June 30, 1926 five forest protective associations were in operation: Talcott Mt. with 16,025 acres; Central Fairfield County with 9,855 acres; Ridgefield Association with 6,526 acres; Naugatuck Valley with 17,180 acres; and High Rock with 5,077 acres.[(P134)] Even at this time there was a noticeable reduction in violations of the fire laws. Only 64 arrests were made as compared to 109 convictions in the previous two years. It was also observable that the number of large fires was already on the decline. For example, there had been 49 fires each burning 100 acres or more in 1924; 39 in 1925; 38 in 1926 and 32 in 1927

Through the generosity of Mr. Odin Myerhuber in giving land on the summit of Bluff Head in North Guilford the first steel lookout tower was built by Mr. Lathrop on that site in 1927. At the same time the private station in Bristol was discontinued.

The disastrous fire in the spring of 1926 in the Natchaug State Forest, which had jumped the state highway in spite of the efforts of a large number of men, had convinced me that relying upon volunteer fire fighters was not only leaning on a weak reed, but was unnecessarily expensive. Many men reported at fires simply to get on the payroll. It was evident that a few well trained men, who had had experience and would not be unduly frightened by a fire, would do much more effective work than twice the number of untrained men. A bill was, therefore, drawn and passed by the General Assembly authorizing fire wardens to organize such trained, registered crews. Men so listed in advance of the fire season, and when approved by the State Forester's office, were paid 50 cents an hour at fires instead of 35 cents. In 1928 there were already 41 such crews comprising 362 men. Gradually these crews were trained and proved much more efficient than untrained volunteer fire fighters. It was an important step forward in fire control.

Mr. Philip Buttrick, who was well trained as a research man, made a careful examination of the six worst fires of 1927. The first which was an inter-state fire burned 2950 acres in Rhode Island and Massachusetts.[(P135)] It was a railroad fire, and lack of coordination among the states was blamed for the large area burned. The second fire which burned 150 acres in Hamden on April 19 was set by railroad employees clearing the right-of-way. Another fire occurred in Hamden the same day. The damage done by these two fires, as in so many cases, was due to the lack of men and equipment to deal with two fires simultaneously. A fire in Sharon near Ellsworth burned 1100 acres between April 12 and 14. It was fought the first day with shovels and wire brooms and considered extinguished, but like so many fires, it broke out again because of lack of patrol. The need of a power pump was apparent. In Enfield a fire burned along Massachusetts boundary on April 21 covering an area of 2600 acres of which 600 acres were in

Connecticut. In Rockland a fire on April 12 and 13 burned 200 acres. Like the Sharon fire this was controlled the first day, but left without a patrol, and it broke out again and burned an equal area the second day. Reports of this kind pointed out the weakness in the organization and eventuated in correcting them.

Throughout this period additional fire equipment was distributed as funds were available. In the spring of 1926 Mr. James L. Goodwin gave one double forester pump to each district in the state. The first power pumps were acquired in 1926, an Evinrude and a FitzHenry-Guptill. Others were acquired in succeeding years, and Mr. Lathrop equipped a large truck with pump and hose.

In 1929 for the first time the forest area burned was reduced to one per cent of the total forest area of the state. Twelve hundred hand pumps were now in the hands of the fire wardens. Three new steel lookout towers were erected so that by 1930 there were ten in operation: Ochepetuck in Union; Mohawk in Cornwall; Dennis Hill in Norfolk; Storrs at Mansfield; Travelers Tower in Hartford; Bluff Head in North Guilford; Oxford;[(P136)] Johnnycake in Burlington; and Pine Rock in Beacon Falls; and a secondary tower on Mt. Tom. Mention should be made in this connection of the cooperation of the Travelers Insurance Company in allowing the use of its tower; and of Mr. Harry Ney of Farmington who gave the land on Johnnycake Hill. The Housatonic Forest Protective Association with 21,175 acres brought the total area of protected area up to 89,198 acres. In one way these associations were a disappointment. I had hoped that they would be a medium in getting landowners to practice forestry, but few owners attended the annual meetings and the patrolmen employed at the low wage available were not the type of men who could interest owners in silviculture or the proper marketing of their products. However, they were an important factor in reducing fire damage.

When Edson Stocking left the Talcott Mt. Forest Proactive Association in May 1926 he was succeeded as patrolmen by his brother Milton. Besides the prevention of forest fires, the patrolmen were active in enforcing the laws relative to stealing evergreens, etc. Mr. Edson Stocking had done particularly good detective work in tracing some of these people. For the most part the dealers in Christmas greens, who were the chief offenders, were Greeks, as they seemed to have a monopoly on the business. Patrolmen R.A. Perry and Edward Haines also secured several convictions under these laws in 1926.

In the spring of 1927 the patrolmen for the protective association were: Talcott Mt., Milton Stocking; Central Fairfield, Lyle Griswold; Ridgefield, D.W. Workmen; Naugatuck Valley, R.A. Perry; High Rock, Harry D. Gates; Patrol-at-Large, Edward J. Haines.

Among the fire wardens the following served in the General Assembly of 1925: Samuel L. Bartholomew of Goshen; William B. Bradley of Beacon Falls; Ellicott B. Bronson of Winchester; Benjamin Davis of Preston; Herman Heser of Killingworth; Charles Malona of Salem, and Charles Todd of North Branford.[(P137)] Other wardens who deserve special mention during the period include: John E. Tanner of Sterling; F.W. O'Neil of East Hartford; Villeroy G. Hard of Newton; H.W. Hopkins of East Hampton; Robert H. Endress of Glastonbury; Reuben J. Keeler of Bridgewater; H. Lincoln Fenn of Washington; J.D. Roberts of Meriden.

METROPOLITAN DISTRICT

In 1929 the General Assembly set up the Metropolitan District comprising Hartford and several surrounding towns. By the act the Commission was given broad powers relative to water

supplies and sewage disposal. The former Hartford Water Board with its extensive forest holdings was merged in this Commission appointed by the Governor. Mr. Charles A. Goodwin of Hartford was chairmen and Mr. Caleb Saville continued as Superintendent and Engineer.

The Hartford Water Board began forest planting as early as 1903 and at this time had approximately 300 acres of forest plantations.

PRIVATE FORESTRY

During this period most of the advice to private owners continued to be a function of the Agricultural Experiment Station under its forester, Mr. Filley, assisted by Mr. Hicock. The Station also maintained a nursery at the Tobacco Experiment Station in Windsor, from which trees were distributed to private owners. There were many small planters as well as sporadic efforts at improvement cuttings. Among the most important undertakings may be mentioned the following.

Mr. Harris Whittemore continued to plant large areas on his farms in Middlebury and Woodbury under the direction of Mr. William Shepardson. After acquiring land north of Beacon Falls, which has already been mentioned, Mr. Shepardson planted a large part of this land also. One plantation of white pine made at this time on the west side of the river proved to be exceptionally free from white pine weevil, which was the curse of most white pine plantations.(P138) The steep slope east of the river had been badly burned a few years before Mr. Whittemore acquired it, and extensive cleaning work had to precede planting.

Mr. Alain White of Litchfield had gotten together a large area of sub-marginal land near Bantam Lake and planted considerable areas each year during this period.

In the next chapter I shall deal at length with the work of the various Water Companies and public boards.

Mr. George Myers planted small areas on his holdings in Union, and the Wells family continued to plant on their extensive holdings for some years. Mr. Holcomb Howard had charge of their work.

For long continued effort in forestry perhaps no one has accomplished as much as Mr. James Goodwin has done on his property in Hampton. Soon after graduating from the Yale School of Forestry, he began in 1913 acquiring sub-marginal farm land which he calls “Pine Acres” on the highway leading from Willimantic to Hampton. Here in 1914 he planted 16 acres with four year white [pine] transplants. His superintendent at this time was Mr. Aubrey DeLong, a graduate of the Mont Alto Forest School. In 1917 he planted ten acres with red pine, and in the following year tried Douglas fir with [the] usual heavy deer damage resulting. In the same period he planted apple orchards and began important improvement work in his hardwoods. In 1919 he cut 175,000 board feet and 200 cords of chestnut and oak for which he received $2,000. In 1920 he planted 284 acres with five year old transplants of white and red pine, and in the following year 24,500 red and white pines and 30,000 Norway spruce two-year-old transplants. A small burn was planted in 1921. More land was purchased each year as it came into the market and two acres in 1922 were planted to red and white pine.(P139) In 1923 he planted 10,000 Scotch pines as an experiment. Even a disastrous fire of 1924 which destroyed 43 acres of pine plantations did not discourage Mr. Goodwin. This fire was proved to have been caused by a locomotive and the Railroad Company reimbursed him $2,336. The same fall he planted 8600 red and white pine

two year seedlings. Up to this time the cost of reforestation had ranged from $10 to $22 an acre. In December of this year the first Christmas trees were cut from a plantation only three years old. In 1925 on the burned area, 16,000 red and white pines were replanted. In 1926 Mr. Edson Stocking took the place of Mr. DeLong as manager, and in that year the remainder of the burn, 13 1/2 acres, was replanted with red and white pines; and 5800 board feet and 103 cords of wood of hardwood were cut. In 1927 much improvement cutting was done on land recently acquired in Chaplin. This included 13,700 chestnut posts sold to the Highway Department, 23,600 board feet of logs and 115 cords of wood. Three thousand chestnut rails were also cut and sold. In the spring of 1927 he planted 30 acres with 38,000 red and white pines, and in the fall ten more acres were planted. In 1928 a survey and type map was made by Mr. Mardasheff. This included the entire wooded area of 680 acres, not including plantations. The total amount of timber at that time was 1,711,840 board feet and 6200 cords. In October of this year [1928], Mr. Goodwin entertained the Connecticut Forest and Park Association on his tract. About 100 members were present. In 1929 Mr. Goodwin planted 19,000 white and red pine and Norway spruce, and in the winter cut 20,300 board feet of logs. These were sold on the skids for $17 a thousand feet[21]. He has been a pioneer in the raising and marketing of Christmas trees.

[21] For all of this information I am indebted to the very attractive "History of Pine Acres Farm" published by Mr. Goodwin in1952

CHAPTER VIII PERIOD OF THE GREAT DEPRESSION AND UNEMPLOYMENT 1929 - 1931

(P140)From the close of the First World War the country had enjoyed prosperity with the exception of a minor recession in the early twenties. By spring of 1929 it looked as though everyone could be wealthy if he invested his money in the right things. Politicians and bankers were predicting nothing but prosperity ahead. People were investing their life savings in stocks, Young men were giving up salaried positions to become security salesmen in order to be "on the inside". Under the influence of high pressure salesmanship many people borrowed money to buy stock on margin. Many even mortgaged their homes to get money to join in the race for wealth. Through the spring and summer of 1929 stock prices advanced spectacularly so that many stocks were selling at prices that only yielded two to three per cent, or even less. People were buying for speculation rather than for an investment. Finally, in October the crash came. Prices of securities declined rapidly. Rights that had been issued were worthless. Banks were calling for extra collateral on loans, and brokers demanded more security for marginal purchases. Many people who had piled up great wealth on paper were wiped out within a few days. There were a number of suicides on Wall Street. Many borrowed money from relatives and friends and eventually involved them as well as themselves in ruin. Some predicted a speedy recovery and bought more stock at the lower prices, but prices continued to drop.

At first it appeared to be purely a financial crash due to the fact that prices had gone to high, but within a few months factories began to lay off employees, or shorten the working hours.(P141) The country was over supplied with automobiles, electric refrigerators, victrolas [record players], and hundreds of gadgets which make business. Thousands of people had bought these on the installment plan, which increased the dilemma when working men began to be laid off. President Hoover created the Reconstruction Financial Corporation (R.F.C.) to advance money to companies in financial straits, but even this was not enough to forestall failures, and during the next three years there were many failures of business concerns and even banks

It was not long before men, out of work, began to come to my office applying for jobs. Many of these men with families to support were pitiable cases. I recall that some men who had considered themselves wealthy a short time before, men who had never done any physical work, asked for any kind of work that I might give them. Of course, we had no money available.

USE OF UNEMPLOYED MEN IN FOREST WORK

The first effort to furnish woods work for unemployed men was a small experiment carried on in the Peoples Forest in the summer of 1930. Mr. Robert M. Ross, who had succeeded Mr. Buttrick as Secretary of the Connecticut Forest and Park Association, had raised a fund sufficient to employ sixteen young men for the summer. The announced object was to give healthful employment to young men and improve the forest. The old Chatfield House, later demolished, was used as headquarters. The work was directed by District Forester Parker, and Mr. Edward Hawkes as foreman. This camp closed on October 4, 1930.

On December 12, 1930 the State Forester, in cooperation with the Experiment Station, Extension Forester and the Connecticut Forest and Park Association, held a Forest Planting Conference in the State Capitol. Among the resolutions adopted at this meeting were:(P142)

1. Declaring that it was the sense of the Conference that there were 100,000 acres in the state which should be planted with forest trees.
2. The Conference urged that work be done in the winter in safeguarding the forests from fire.
3. It urged an emergency State appropriation of $100,000 to carry out such activities.

In sympathy with these recommendations Governor Trumbull, in the same month, caused the State Board of Finance and Control to set aside $10,000 as an experimental fund for such employment.

Acting upon recommendations of Governor Cross in his inaugural message, the General Assembly appropriated $100,000 for this purpose on February 4, 1931. Of these two funds the Commission allotted $88,000 to the State Forester. This was expended in the winter and spring of 1931. In the fall of 1931 the State Board of Finance and Control made a further allotment of $50,000 to the State Forester for this purpose. This was expended in the winter and following spring. Altogether, therefore, the Forestry Department had for unemployment relief $138,000 during the two years 1931 and 1932. The first winter, men were paid 40 cents per hour, but in order to aid more men a wage of 35 cents an hour was adopted the second winter. In similar relief work carried on by the State of California in the forests, the men were kept in camps and worked for their board.(P143) It was our policy, so far as possible, to employ heads of families and pay them enough to cover the necessities of life for themselves and families.

In addition to work done under these appropriations, the state forests benefited from certain local funds. Waterbury furnished a considerable number of men, who worked in the southern portion of the Mattatuck forest. In Naugatuck, several men were employed through private contributions. Work was conducted in all the eighteen state forests in order to distribute it as widely as possible. About 440 men were employed at one time the first winter, and 200 the second winter. The number actually helped was greater than these figures indicate. The men were organized in crews varying from ten to twenty, each working under an experienced foreman, and all under the direction of trained foresters. Besides the members of the Department, these foresters included Professors Moss and Gibbs of the Connecticut Agricultural College, whose services were donated by the College; Mr. Robert M. Boss, Secretary of the Connecticut Forest and Park Association; and Mr. William Shepard, a consulting forester of Berlin, Conn. It was the aim of the Department to spend as much of the appropriation as possible for wages, paying for most of the supervisory work out of the regular appropriation. The following table shows the distribution of these appropriations:

	First Appropriations $88,000	Second Appropriations $50,000
Labor, teams & trucking	91.3 per cent	97.7 per cent
Salaries & travel of supervisory force	3.6 per cent	1.7 per cent
Equipment, tools, food, & doctors' bills	5.1 per cent	0.6 per cent
	100 per cent	100 per cent

Men employed from rural communities transported each other.(P144) The city governments

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State Forests' Wood Free to Unemployed

Hawes Says 50,000 Cords Are Available—Permits Preclude Selling Fuel at Profit.

There may be some unemployment the coming winter, but State Forester Austin F. Hawes says there is little reason for the unemployed to suffer for lack of fuel. In his opinion 50,000 cords of wood are going to waste in state forests which could be distributed to those who will cut and remove it. Removal of the wood will improve growing conditions in the forests. Much dead wood should be burned at once. Green wood cut now can be burned before the end of the winter.

Mr. Hawes has sent letters to mayors of cities calling attention to availability of the wood in the forests. He offers the wood as one means of aiding to relief of the unemployment situation. He will give written permits to individuals or organizations to cut and remove such wood under proper supervision of a forest ranger. No live trees will be cut except those marked by a ranger.

Permits For Ten Cords.

Individual permits will be limited to ten cords. Charitable organizations, employers or community groups may secure permits for considerable amounts of wood with the understanding that it is not to be sold at a profit.

The offer, Mr. Hawes stated, is for the benefit of the unemployed and not for commercial purposes. No charge will be made for the wood or for the supervision of the cutting, but all cutting and transportation costs must be borne by the permittee. Men who are unemployed or only partially employed could spend their days in chopping wood. In case such men have no means of transporting the wood, provision could be made for truck transportation, both of men to the forests and of the wood to the towns and distributing points.

Cities Near Forests.

Mr. Hawes noted that many cities are within easy hauling distance of the state forests. For example the Mattatuck forest is within four miles of Waterbury and Thomaston; the Peoples forest is within six miles of Winsted and New Hartford; Hartford, Torrington, Middletown and New London are from ten to fifteen miles from a state forest so that three to four round trips could be made in a day by a truck. A crew of ten men can chop wood as fast as a large truck can transport it. With proper organization Mr. Hawes points out this offer of free wood should go a long way to meet the problem of lack of fuel in homes of those unemployed.

Figure 34. Notice of new program for the unemployed in the Great Depression (Connecticut State Library collection)

of Winsted, Torrington, Middletown, Willimantic and Putnam transported the men distances varying from ten to fifteen miles. In return these cities received one-third of all wood cut by these crews. This wood, which was distributed by the cities among the deserving unemployed, amounted the first winter to 1,057 cords and the second winter to 508 cords. As there were no forests near Hew Haven and Bridgeport, crews from these cities were camped in two forests; men from New Haven in the Pachaug Forest, and those from Bridgeport in the Mohawk Forest. These men received thirty cents an hour and board. It was unnecessary to maintain any camps the second winter.

The men were selected by the local relief officers. It was made clear at the start that men would not be retained if they were unwilling or unable to work. Very few men were dropped for these reasons. A large proportion of the men were natives of the state, but some of the men had been brought up in the woods in distant regions; Canada, Russia and Italy. The benefits which these men received could not be measured in money. Of more importance was the encouragement which the work gave them at a time when everything looked black for them. The physical benefit from healthy outdoor exercise was especially valuable to men who had been long employed in indoors work. Most of the labor was along three main lines: Safeguarding the forests from fire; improving the forests by cuttings; and road making. A system of fire lines was developed so as to cut all forests into area of not over 500 acres.(P145) Dead trees were removed on a strip fifty feet wide. About 335 miles of such fire lines ware made the first winter. As there was still dead chestnut in the forests, 14,500 chestnut fence posts were salvaged in the operation. In the second winter this work was continued so that altogether 472 miles of fire lines were made.

The roads built at this time were not up to the specifications later laid down by the U.S. Forest Service for the C.C.C., but roads were built suitable for the removal of forest products and to provide access for firefighting equipment. Rocks were blasted so far as dynamite was available, and considerable gravel was distributed after the roads had been graded and drained. Altogether thirty miles of roads were built bringing the total mileage in the state forests up to fifty-five miles, or about one mile per one thousand acres of state forest.

Silvicultural practice in the forests was given its first important lift by this supply of

Figure 35. Work in the woods provided firewood for unemployed families (Connecticut State Library collection)

labor. A number of forest plantations in danger of being suppressed by hardwood sprouts were weeded with billhook and machete. In the Simsbury Forest, for example, a red pine plantation had been badly suppressed by oak and soft maple sprouts. In the second season, after weeding, the pine growth was more than double, averaging about five inches. About 1300 acres of plantations in the various .forests were weeded. Salvage cuttings were made on burned areas preparatory to planting, particularly in the Natchaug and Pachaug Forests. About 2,000 cords were also cut under free use permits issued to 462 people the first winter, and 2,365 cords by 432 people the second season.

In the improvement thinning, a change of method was followed the second year in order to get over the larger area.(P146) In the first winter the thinning had been "from below", which resulted in cutting a great deal of small material. In the second winter thinning was "from above". This means that the crop trees were first selected and the only trees cut were thus likely to interfere with the growth of these crop trees. Some contract cutting was done at prices varying from $2.00 to $2.25 per cord. Practically all thinning at this time was confined to strips 200 feet wide along the roads where the products could be easily removed, and the improved areas could be more readily seen. In the spring of 1931 about 816 acres were planted to forest trees and in the following spring 846 so that the total area planted in state forests by the summer of 1932 was 4,544 acres. Pruning of crop trees had been adopted as part of our forest policy and inferior trees interfering with crop trees were girdled. In the first winter sixty-two acres were pruned in this way and in the second season 102 acres

Several administrative buildings on state forest were repaired and painted with this labor. These included the Nye-Holman house in West Willington, which became the District Forester's headquarters, and a dynamite storage house was built in the Cockaponset Forest.

Altogether about one-fifth of the total area of the state forests received some kind of improvement work. Trees planted during the two seasons amounted to 1,323,563 of which red and white pine and Norway spruce were the leading species.

It appears from the record that Connecticut and California were leaders in the use of the unemployed men in the forestry work. Doubtless other states did similar work in this period.

THE COMMISSIONS

(P147)The Commissions pursued their duties conscientiously and harmoniously during this period much as previously. Mr. Lucius Robinson continued as Chairman of the Parks and Forest Commission and Professor H.H. Chapman as President of the Commission on Forests and Wild Life. William C. True was Vice-President and W.O. Filley, Secretary of the letter Commission.

Mr. John Titcomb, Superintendent of the Board of Fisheries and Game, died in March 1932, and was succeeded by Mr. Arthur Clark. The same cordial relationship continued between the Forestry Department and the Board of Fisheries and Game as formerly.

Mr. Elliott B. Bronson, who had done such efficient work in land acquisition, died on December 3, 1931. His son, Mr. Elliott P. Bronson, who had been assisting his father, continued on a temporary basis until June 1, 1932 when he was appointed Field Agent. Both Bronsons worked harmoniously with the Forestry Department in an effort to consolidate state holdings; to acquire land with as much growing stock as possible and to acquire as much land as possible with a frontage on highways. This was considered desirable from a forestry standpoint, as one of

Figure 36. State Forester Hawes (L) and deputy Lathrop (Connecticut State Library collection)

the objects of state forests was to serve as demonstrations. Another reason was to preserve the scenic beauties of the state, which were so rapidly being destroyed by unsightly developments.

The Park and Forest Commission moved into the new State Office Building, with rooms facing Buckingham Street, in November 1931. It may be of interest to mention that when Lieutenant Governor Ernest Rogers of New London was running for Governor he wished to familiarize himself with as many of that state forests and parks as possible.(P148) As Lieutenant Governor he had visited most of the state institutions. During the summer I took Mr. and Mrs. Rogers to many of the forests and parks, as no candidate had previously expressed so much interest in our work. However, he was defeated, and Dr. Wilbur Cross of Yale succeeded Governor Trumbull in January 1931. He continued in office until 1939.

FORESTRY PERSONNEL

Mr. Lathrop continued as Assistant State Forest Fire Warden, and on July 1, 1930 Mr. E.M.C. Eddy was appointed Supervisor of Wardens in the western district. He had been fire warden in Simsbury for many years and had excellent judgment in all matters pertaining to fire. Unfortunately, owing to Mr. Lathrop's overbearing attitude there was always friction between them.

Mr. Schreeder continued as Forest Engineer in charge of surveying and working plans. He also acted as District Forester for the Central District and was assisted by Ranger John Jacobson in charge of the Cockaponset State Forest.

Mr. S.E. Parker was District Forester for the Western District with an office in the Chamber of Commerce Building in Torrington. He was assisted by Ranger Hubert Hubbell, in charge of Housatonic, Mohawk, Mattatuck, Pootatuck and Naugatuck State Forests; Ranger R.A. Perry in charge of Peoples, American Legion, Tunxis, Paugnut State Forests; and Milton Stocking in charge of Nepaug and Simsbury State Forests. Mr. Joseph Pike, who had been District Forester in the Eastern District from September 17, 1928, resigned on June 30, 1930 and was succeeded by Mr. Eugene C. Winch, a graduate of the University of Maine and the Yale School of Forestry.(P149) He had an office in the Jordan Building in Willimantic. He was assisted by Ranger Joseph Synnott, in charge of the Meshomasic State Forest; Ranger Ralph Bunnell, in charge of Nipmuck, Natchaug, Soapstone and Nye-Holman State Forests; and Ranger Gordon Abbott, in charge of Pachaug and Nehantic State Forests.

Figure 37. Forest fire wardens in 1930 (Connecticut State Library collection)

A group picture at this time of the employees shows twelve men in uniform.

Miss Grace Greenberg resigned in the spring of 1930, and Miss Loretta O'Connell became Editor of the Wooden Nutmeg in which capacity she continued until the publication was discontinued by Director Mathews.

PUBLIC RELATIONS

Circulars and maps describing individual state forests were published during this period for Peoples and American Legion; Mohawk, Mattatuck and Cockaponset Forests; and the bulletin on all the state forests was revised and republished on September 1, 1931. Also the handbook on Forest Trees of Connecticut was republished in cooperation with the State Board of Education in 1931. An illustrated bulletin entitled "What Nature Offers in the Mattatuck State Forest" prepared by Mr. Arthur E. Blewitt of Waterbury, printed in 1932, was of special interest to botanists. Forest type maps of Windham and Litchfield Counties were printed. It was originally intended to publish such maps of all counties, but the expense proved too great to justify it.(P150)

Lectures were continued as formerly and arrangements were made to employ Mrs. Otis G. Bunnell cooperatively with the Forest and Park Association. She was Special Lecturer of the Department for the schools, and made many talks. The work which Mr. Lund did as Nature Specialist for the Department of Education, and Mrs. Bunnell's work, make this period stand out as the most effective in the education of the young in conservation matters.

For many years Mr. Lathrop had exhibits at the Danbury Fair, and in September 1930 he had one in the Harford Armory at the exhibition of the Connecticut Horticultural Society.

Reference has already been made to the Forest Planting Conference in December 1930. . On October 28, 1931 the Blister Rust Agents of the country held a special conference at Lakeville, and visited the Peoples State Forest afterwards.

On July 14 and 15, 1930 the New England Section of the Society of American Foresters met in Connecticut while I was Chairman of the Section. The group visited the Rainbow plantations, the Meshomasic Forest, and had dinner at the Hotel Garde in New Haven. On the second day the Section was welcomed to the Forest School by Dean Henry S. Graves, and Professor Ralph Hawley spoke about the Eli Whitney Forest of the New Haven Water Company. In the afternoon a visit was made to the Maltby Tract and there meeting ended at Hammonasset State Park.

Figure 38. State Foresters listening to FDR (Connecticut State Library collection)

A memorable event was the joint meeting of the New York and New England sections of the Society of American Foresters in the summer of 1931. Approximately one hundred foresters were entertained by Governor Franklin D. Roosevelt on his estate at Hyde Park, New York.(P151) From his front porch he delivered an excellent extemporaneous speech on forestry, much the most intelligent that I have ever heard from a politician.

On March 31, 1933 Governor Cross and I took part in the planting of a descendant of the Washington elm of Cambridge on the grounds of the State Capitol.

CONNECTICUT FOREST AND PARK ASSOCIATION

Mr. Philip Buttrick resigned as Secretary of the Association in December 1929 to accept a research position with the Armstrong Cork Company to make an exhaustive study of the cork oak of the Mediterranean countries. He was succeeded by Mr. Robert M. Ross, who had resigned his position as State Forester of Vermont. Miss Pauline Spencer continued as Assistant Secretary as she had been under Mr. Buttrick.

A spring field meeting was held on April 19, 1930 to formally open the Quinnipiac Trail, part of a statewide trail system envisioned by Mr. Edgar L. Heermance of New Haven, and other hikers. Their slogan was “follow the blue blazes”. At this time there were 500 miles of foot trails in the state.

Also on January 11, 1930 the Association held its annual meeting at the Hotel Garde in New Haven. Mr. Herbert Evison, Secretary of the National Conference on State Parks, and Mr. Raymond Torrey, Secretary of the American Scenic and Historical Society, were the chief speakers.

About this time the Association lost two of its outstanding and most helpful members.(P152) Former President Philip Wells, Yale 1889, died in California in the spring of 1929, and Mrs. Jessie Gerard, long chairman of the Conservation Committee of the Federation of Women’s Clubs of Connecticut, died on February 3, 1930.

In the spring of 1930 the Association organized a Trails Committee with Mr. Edgar Heermance as chairman.

The regular field meeting of the Association was held in the spring of 1930 with the Black Rock Forestry Association at the Black Rock State Parks to unveil a memorial tablet for Mr. Harley Roberts who had done so much to build this park, and the adjoining Mattatuck State Forest. For many years Mr. Roberts had been Latin Master at the Taft School, and the principal talk at this seating was made by Mr. Horace Taft, founder of the school, and brother of President

William Howard Taft. The Roberts tablet was placed high on a unique, pointed boulder in the State Forest.

The fall meeting was held at Rocky Neck on October 4, 1930 to further plans for a shore park in East Lyme. Ten public spirited citizens, all members of this Association, financed the project to acquire the Rocky Neck property and held it until the General Assembly of 1931 made an appropriation to take it over. This was the finest beach in the state which was still open to the public, because the railroad, immediately back of the beach, had prevented the development as a summer colony.

On June 6, 1931 the Association met again on the Meshomasic State Forest and dedicated the newly built road as the Walter Milford Road. At the annual meeting in January 1933, 4-H Club prizes were instituted through the generosity of a member.(P153) A marketing committee was also organized at this time.

NORTHEASTERN FOREST EXPERIMENT STATION

This Experiment Station, which was one of several established by the U.S. Forest Service, had at first been located at Amherst, Mass. under Mr. Samuel Dana. Some time after he resigned to become Dean of the College of Forestry at the University of Michigan, the Experiment Station was moved to New Haven. For several years it occupied a house belonging to Yale University on Prospect Street opposite the old Marsh estate. Mr. C. Edward Behre was the Director during this period. He had been with the staff since 1923. The state foresters, professors of forestry, and a few other foresters, were members of the so-called Advisory Council which met annually at the offices. It soon appeared that instead of advising the Station, the function of the Council was to listen to an address by the Director and assist in securing larger appropriations. While these Stations undoubtedly did much sound research work, it has been an unfortunate feature of the whole research branch of the Forest Service that it has had to expend so much energy in getting larger appropriations [that] its research work has been badly curtailed.

YALE SCHOOL OF FORESTRY

In 1930 the School of Forestry celebrated the thirtieth anniversary of its founding with Ex-Governor Gifford Pinchot of Pennsylvania as the chief speaker. About this time, Mr. George Myers, a graduate of the first class, gave his forest of about 8000 acres in Union and adjoining towns to the Forestry School.(P154) He reserved his summer home and certain hunting rights, and stipulated that the forest could not be sold by the University without paying him a very high price. As already mentioned, the forest had been badly over cut by an unscrupulous supervisor, and the growing stock was, therefore, no better than on the average state forest. Mr. W.D. Canterbury, a graduate of the Yale Forest School, had charge of this forest for several years under the general direction of Dean Graves.

NATIONAL ASSOCIATION OF STATE FORESTERS

During this period I attended the annual meetings of this Association to discuss proposed Federal and State legislation as follows:

1929 in North Carolina

1930 in Oregon and Washington
1931 in Florida and Georgia
1932 in New Jersey. At this meeting I was given a ride in an autogiro, the forerunner of the helicopter.

BUTTRICK'S BULLETIN ON PUBLIC AND SEMI-PUBLIC LANDS OF CONNECTICUT

While Buttrick was still with the Association, he had compiled a great deal of valuable information on the above subject. This was published in 1930 as Bulletin No. 49 of the State Geological and Natural History Survey. Buttrick had a keen mind and, in spite of a rather gruff exterior, was an idealist. In contrast to Mr. Heermance, who later became secretary of the Associations, he was a firm believer in public ownership of large areas of forests.(P155)

In his introduction, he points out that the State owned at that time some 68,000 acres of land; and that the towns, cities and counties owned some 44,000 acres more. In addition to these public lands he found that 78,000 acres belonged to public service corporations, educational institutions, and trusteeships of various kinds. In all, 190,000 acres were under public or semi-public ownership. There is a great deal of valuable information in this bulletin, much of which does not particularly pertain to forestry. There are many citations to court decisions as to riparian ownership, lands under water, oyster beds, etc.

Under the title of State Forests he [Buttrick] points out that the Park and Forest Commission has as its objective the acquisition of 200,000 acres. Reviewing acquisition, Chapter 175 of The Public Acts of 1901 provided for the purchase of state forests, the price to be limited to $4.00 an acre. In 1911 this was increased to $8.00 an acre; and in 1925 to $10.00, with a provision for purchases at a higher price under authority of the State Board of Finance and Control. The average price paid in 1903 was $1.62 an acre, whereas in the first half of 1929 the average price was $9.36 per acre. On December 1, 1930 the area of state forests amounted to 55,727 acres.

It is of interest to note that he pays special attention to the relations of forests to water supply. Buttrick points out that it is more important from a water conservation point of view that state forest be located at elevations about the surrounding country. In his Table VII he shows that the greatest area of state forest lies between five hundred and one thousand feet above sea level, and that the remaining area is about evenly distributed below five hundred feet and above one thousand feet.(P156)

In his analysis by towns he shows that Hartland has the greatest area of stats forest, 4,008 acres; while Chester has the largest percentage of its area in state forest; namely, twenty-two per cent. He believes that ultimately the state forests should average from five thousand to ten thousand acres. Of course, this bulletin was prepared at a time when urban population was just beginning to move out into the country; a movement which did not get well under way until after the depression, although many families went back to their old homes during this period.

Buttrick then goes on to consider state parks. He points out that the first state park acquired was in 1887, when the Putnam Memorial Camp Ground was acquired in Redding and Bethel. The next acquisition, the Henry Whitfield House in Guilford, was also of historic interest. Fort Griswold, the old Revolutionary fort in Groton, was the third state park. These three are all that the State owned when the State Park Commission was established in 1913.

At the time of writing, the Park and Forest Commission had thirty-eight parks varying in

size from one-half acre to seventeen hundred areas. The total area in these parks was 9,879 acres on December 1, 1930.

Lands used for game and wild life received the next consideration. On June 30, 1928 there were one hundred sixty miles of state leased streams. The State Board of Fisheries and Game had for game breeding areas the Farmington sanctuary of two hundred ten acres, and the Litchfield-Morris area of 4,211 acres.(P157)

Some consideration is given to Military Reservations and Indian Reservations; also land used by State Institutions and highways. According to the State Highway Commissioner en September 16, 1929 the total mileage of State Trunk Line Highways was approximately 1,294 and of State-Aid roads 718. Buttrick estimates the area owned for all these highways at 15,996 acres. The length of the city streets was estimated at 1,883 miles; and of all roads at 9,674 miles. His total estimated area of all roads in the state is 74,984 acres.

The State Comptroller valued the land owned by the State on June 30, 1928 at $4,213,033, and total State property at $83,704,889.

Under the title of Local Parks, Buttrick points out that Bushnell Park in Hartford was the first city park in the State; it having been purchased by the City in 1856. The purchase of East Rock by New Haven in 1880 established the idea of city parks more or less remote from the city proper. The total area of city parks in Connecticut is given as about 7,000 acres. He points out that at that time there were five cities without any parks; namely, Ansonia, Danbury, Derby, Putnam and Winsted. He estimates the total area of all town parks at about 1,000 acres. Town forests have never become popular in Connecticut. The total area of the four [town] forests in Colchester, Ellington, Farmington and Newton is put at 400 acres.(P158)

On the subject of public water supply system in Connecticut, it is interesting to note that the earliest system was established in Durham in 1798. The first city to have a reservoir system was Bridgeport. It was established as a private corporation in 1853. Hartford in 1856 and New Britain in 1857 were the first city-owned water systems in the state. At the time of writing Buttrick found seventy-four public or semi-public water plants owning land for water purposes.

	No. of Plants	Land Acreage	Water Acreage	Total
City, town or borough owned	19	29,529	5,562	35,091
Seal public corporation owned	55	62,238	7,920	70,158
Total	74	91,767	13,482	105,249

In summarizing all the above information Buttrick concluded that there was a total of 190,674 acres of public or semi-public land in the state, which amounts to slightly less than six per cent of the total land area of the state. Of this total about 69,000 acres were available for outdoor recreation. Of this area, public parks comprise 17,000 acres.

Information such as that contained in this bulletin will prove of great value for comparative purposes as time goes on.

BULLETIN ON "PRESENT CONDITION OF CONNECTICUT FORESTS"

This bulletin, which I prepared and published in 1933, is a record of the condition of the forests at that time, which will prove valuable for future comparison. By reference to it, it will be possible for future forests, when forestry is again considered important to the welfare of the state, to determine whether the forests are better or worse than they were in 1933.(P159)

The land area of the state, according to various sources, varies from 4,845 to 5,004 square miles or 3,194,445 acres was accepted. For purposes of comparison with the 1915 survey made by the Experiment Station, an area of 4,991.32 square miles or 3,194,445 acres was accepted. In the collection and correlation of the data used in this bulletin, I was assisted by Messrs. W.F. Schreeder, William Baldwin and Philip Buttrick.

Comparison of three surveys of Litchfield County shows that in 1909 some fifty-five per cent of the area was considered forest; in 1914 the forest area was divided evenly between open land and forest; and by 1930 the forest area had increased to 59.5 per cent of the total area. In the same way the forest area of Windham County had increased from fifty-three per cent in 1914 to 65.6 per cent of the total area in 1930. These figures were based upon the published maps of these countries already mentioned.

Based upon these findings in Litchfield and Windham Countries, it seemed safe to assume that the forest area of the whole state had increased to [by] ten per cent in the period between 1915 and 1930, which made the total forested area fifty-six per cent of the total. This amounts to 1,788,889 acres instead of 1,483,300 acres as determined in 1915. In other words, land had been reverting to forest at the rate of about 20,000 acres a year.

In the classifications of the forests, four forest types were recognized in this study. Based upon the studies of these two counties and of the state forest, the forest area of the state was classified as seventy-three per cent mixed hardwoods; nine and two-tenths per cent softwood-hardwood; two and eight tenths per cent softwood; and fifteen per cent old field.(P160)

In the same way four age classes were recognized and the forest area of the state fell into the following groups:

Sapling stage	1 to 20 years	35 per cent of area
Cordwood stage	21 to 40 years	32 per cent of area
Polewood stage	41 to 60 years	25 per cent of area
Tie and Timber stage	61 and over	8 per cent of area
Total		100 per cent of area

A pie chart [in Hawes' bulletin] shows that of the lumber production in the state in 1926, oak accounted for thirty-one per cent; chestnut still accounted for twenty-one per cent; white pine sixteen and two-tenths per cent; maple nine per cent and hemlock eight and seven-tenths per cent. Of other species: birch, beech, hickory, tulip, ash and basswood, the first mentioned is the only one that amounted to three per cent of the total.

Applying the best estimates available for the various types and age classes, the total estimated stand of the forests of the state in 1930 was 2,338,220,000 board feet of lumber plus 9,356,470 cords of wood. Converting the lumber to cordwood, the total stand of the state amounted to 14,032,910 cords. Of this about seventy per cent was considered hardwood and

thirty per cent softwood. The average stand of lumber for the whole state was 1,300 board feet per acre.

Part IV of the report was devoted to a consideration of forest growth.(P161) Based upon 1,200 borings in trees in state forests and analyses of study plots, a round figure of 700,000 cords was considered a fair estimate of the annual growth of all the forests of the state. Under depletion [completion] a table was included showing lumber production of the state for the period 1904 to 1930. During this twenty-seven year period corresponding roughly with the period in which a State Forestry Department had been in existence, a total of 2,156,073,000 board feet had been removed from the forests. The annual average lumber cut, therefore, amounted to 79,855,000 board feet. Of this, seventy-five per cent was hardwood and twenty-five per cent softwood. Since the industrial use of cordwood had declined, it was conservatively estimated that the drain upon the forests from cordwood cutting did not exceed 200,000 cords a year and that from fire 50,000 cords. Altogether, converting lumber to cordwood, it was considered that the annual drain upon the forests was about 300,000 cords for utilization and 100,000 cords through fire, insects and disease. Deducting this figure from the estimated growth of 700,000 cords, even allowing for inaccuracies, indicates that the forest growth considerably exceeded the drain from all causes. If this surplus growth over drain is put at 250,000 cords a year, it is obvious that the total volume was increasing quite rapidly, and as the forests advance in age, a larger percentage of the volume would be lumber. While it is evident that much of this information was based upon too scanty data, it gave a fair picture of the forests at that time. No information of this kind has been published since.(P162)

ACQUISITION AND ADMINISTRATION OF STATE FORESTS

Acquisition of state forests by the Commission on Forests and Wild Life continued satisfactorily during this period. By September 1, 1931 the area of state forests was 60,625 acres; and by June 30, 1932 it was 63,346 acres. Four new forests had been secured: Shenipsit, at first called Soapstone, located in Stafford, Ellington and Somers, 3,236 acres; Naugatuck, in Beacon Falls and adjoining towns, 1,873 acres; Nye-Holmen in Willington 186 acres; Paugnut in Torrington, 1,457 acres.

The summit of Soapstone Mountain had been acquired for lookout purposes in the fiscal period 1928-1929. It commands a splendid view from the mountains of southern Vermont and New Hampshire to southern Connecticut. This was the nucleus about which the Shenipsit Forest was purchased by Mr. Bronson with the assistance of Mr. Daniel Avery of Somers.

The Paugnut Forest, north of Torrington, was purchased at the request of Commissioner Titcomb, as it included Burr Pond, an artificial but beautiful body of water created about 1850. The Board of Fisheries and Game paid one-half the price on the first three purchased. This pond of eighty acres was considered good pickerel water, although at the time of purchase the water was very low and underbrush had grown up all around the edges. The Forest and Wild Life Commission allotted $1000 to the State Board of Fisheries and Game to repair the dam. This proved to be an entirely inadequate amount for such an undertaking as will be shown later. Upon this land the previous owner, the old Coe Brass Company, had planted 89,000 trees, but they had been neglected and were badly suppressed by hardwoods.(P163) The liberation of this plantation was one of the projects for the unemployed men.

The Naugatuck Forest was given to the State by the Whittemore family in the spring of

1931. It includes the slopes on both sides of the Naugatuck River. The most conspicuous feature is the High Rock, or precipice, just west of the railroad. Some fifty years previously the New York, New Haven and Hartford Railroad Company had established an amusement park here. It contained a rolling skating pavilion and other attractions, but was abandoned after the Savin Rock Park was established in West Haven. Mr. Whittemore had already planted a considerable portion of this forest with pine and spruce.

The Nye-Holman Demonstration Forest is just west of the Central Vermont Railroad Station of West Willington. This was given to the State by Mrs. Alice H. Hall as a memorial to her family.

Figure 39. Examples of forest conditions in the 1930s (Connecticut State Library collection)

During this period additional gifts were made to the Peoples State Forest. The Matthies family of Seymour purchased the Ullman farm of 210 acres and presented it to the State. It included a beautiful grove of large white pine on the Farmington River bank. This gift was accepted by Governor Trumbull in an informal ceremony on October 15, 1929. The gift was made in memory of William H.H. Wooster and George E. Matthies, both of Seymour. The farm house was renovated and made into a ranger's headquarters. The flat land near the river was used for a state nursery, and the rented field in Simsbury was discontinued.

In addition to money previously given to the Peoples Forest by the Daughters of the American Revolution, this organization, through the efforts of the State Regent, Miss Katherine Nettleton, acquired and gave to the State a tract on the old Farmington River Turnpike.(P164) On June 23, 1930, in the height of the laurel season, with appropriate ceremony, a tablet was established upon a ledge facing this turnpike and marking the site of the old Indian village.

On the other side of the forest, the King and Chatfield farms were acquired through the generosity of Mr. and Mrs. Nelson Spencer of New York City and the Connecticut State Grange.

Of the 63,346 acres of state forests, 47,554 acres had been mapped, and 37,052 acres, or fifty-eight per cent of the total had been type mapped by June 30, 1932. In a study of the forest types it was estimated that the state forests were growing at a rate of about two-fifths of a cord per acre per annum. For the whole area the growth would, therefore, approximate 25, 000 cords. During the two year period 14,360 cords and 649,000 board feet of logs were cut, or a total of 15,660 cords, or an average of only 7,830 cords a year. Even with due allowance for damage by fire and other causes, it was evident that the State Forest growth was accumulating.

In the biennial reports of this period, full information was included showing the products cut and disposed of by state forests, not that such information is of interest to the average citizen, but with the belief that the State Forests would continue to be more and more productive and that more and more citizens would want to know about them as business undertakings.

In the summer of 1931, Dr. Joseph Illick of the New York State College of Forestry and formerly State Forester of Pennsylvania, was employed as Specialist in Silviculture.(P165) It was due to the instruction of Dr. Illick that the Department's method of thinning was revised and thereafter all thinning was done "from above" as previously described. Besides bringing about this more effective method of thinning. Dr. Illick introduced the idea of the "Blue Ribbon tree" corresponding to the "blue ribbon cow or hen". Demonstration plots were laid out and the best trees, which promised to make the final crop, were selected and banded with blue paint. The plan contemplated the removal from time to time of the other trees so that by the time of maturity only these "blue ribbon" or "crop trees" would be left. Four of these plots were established in red pine plantations: three in the Mohawk forest and one in the Meshomasic Forest. In the Peoples Forest a plot was established in a natural white pine stand; in Cockaponset in a stand of tulip; in Paugnut in a stand of large oak and ash; in Natchaug in a stand of white oak and hickory. Several plots were also established in private forests: one in a fine stand of white oak owned by Mr. James Goodwin in Hampton, and another in his forest on Avon Mountain. There was also one in a mixed pine and hardwood stand owned by the Ensign-Bickford Company in Simsbury. All these plots were carefully measured so that their growth could be accurately determined.

FIRE PREVENTION AND CONTROL

The spring of 1930 proved to be the worst fire season Connecticut had experienced since 1922.(P166) This was due in part to the fact that there was practically no snow during the previous winter. A review of the period from 1922 to 1930 inclusive showed that there had been twenty-seven fires during this nine-year period which had burned one thousand acres, or more. The years 1924, 1925, 1928 and 1929 had been entirely free from such fires. These twenty-seven fires, which occurred in the other five years, burned a total of 53,080 acres or an average of 1,966 acres in Connecticut besides considerable areas in adjoining states. At the time of these large fires, westerly winds usually prevail, carrying fire from New York into Connecticut, and in the same way sweeping fire from Connecticut into Rhode Island or Massachusetts. The striking thing about these twenty-seven fires was that none of them started before April 12th and none lasted after May 26th. Furthermore, twenty-two of them occurred in the two weeks' period between April 24th and May 3rd. The two outstanding periods were in 1922 and 1930. In the former 26,600 acres were burned in Connecticut by twelve fires; in the latter 18,000 acres by eight fires. In 1922 there were continuous fires for nine days from April 25th to May 3rd; and in 1930 there were continuous fires from April 23rd to May 7th.

Figure 40. Newspaper account of wildfire prevention (Connecticut State Library collection)

During my entire forestry experience of

forty years I never experienced such a terrible fire day as May 4, 1930. Low humidity, high winds and very dry ground cover combined to make fires spread at a rapid rate. There were seven disastrous fires burning in the State simultaneously on that day.(P167) Two swept in from New York, one into Kent burning 1400 acres in Connecticut besides an estimated 6000 acres in New York; the other came into Simsbury, burning 4460 acres In Connecticut; 1950 acres in New York, and 3300 acres in southwestern Massachusetts. In the center of the state a fire in the Ten Curves section of Marlboro burned 2300 acres; while in the eastern section, one in Ledyard and Groton burned 1000 acres; one in Montville and Waterford 1200 acres; one in North Stonington 1170 acres; and one in Voluntown burned 5000 acres in Connecticut and 5500 acres in Rhode Island. I was with Mr. Lathrop on the North Stonington fire, and after that was under control, we visited the Voluntown fire, which was then on the state line. There simply was not enough heavy equipment available to handle so many fires simultaneously. Neither were there enough trained personnel, who had had experience with large fires. The fire wardens did the best they could with the equipment available. The fact that the total area burned in 1930 was 55,866 acres as compared to 83,000 acres in 1922 showed considerable improvement; for I have no doubt that the weather conditions were equally bad in both years.

In 1931, although there were fires in every month, weather conditions were at no time serious and the 992 fires burned only 13,495 acres.

Again in 1932 there were a large number of fires, 1160; altogether they burned only 9,953 acres so that the average area per fire was only eight and six tenths acres.(P168) The largest fire in that year was one in North Stonington, which burned 411 acres. We had adopted the practice of surveying the large fires so that the figures for area were more accurate than formerly.

There were at this time seven Forest Protective Associations with a total membership of 476. In 1932 the patrolmen of these Associations patrolled 32,224 miles; issued 114 warnings; made twenty-three arrests; discovered thirty-seven fires; and put out eleven without assistance. Altogether only seventy-two acres out of the total area of 80,048 owned by members were burned. Most of this area burned was in the territory of the Central Fairfield County Association.

Although the attendance at the annual meetings of these associations was disappointing, I always attended them when possible, for it gave me an opportunity to keep in touch with the men who were actively interested. Most active was the Talcott Mountain Association which published annual reports. Mr. James L. Goodwin, the Secretary, offered an additional service of surveying and mapping members' land for $12.00 a day which covered a party of three men. The report of this Association, for 1932 shows that Mr. Sherman W. Eddy, brother of E.M.C. Eddy, was President; Horace B. Clark, Vice President and James L. Goodwin, Secretary and Treasurer. The patrolmen at this time were Archie Paine and William Weed. During the year they patrolled 12,230 miles and warned fifty-two persons about illegal burning. They discovered seventeen fires and extinguished three without help. At the end of the year the 172 members of the Association had 24,393 acres.(P169) Twelve members planted with Association help 25,950 pine and spruce transplants.

Largely, as a result of the bad fire season of 1930, the General assembly provided for another great step forward in the control of fires by integrating the fire service with the growing personnel on the state forests. A law passed in 1931 authorized the State Forest Fire Warden to equip trained fire crews at the various state forests and maintain them during periods when forest fires were most likely to occur. An appropriation of $10,000 for the first biennium was provided

for this purpose. Several crews of relief employees were maintained in the western district in the spring of 1931, and after this law went into effect on July 1, 1931, similar crews were organized in the other districts.

Two steps in firefighting strategy needed improvement. Wardens had always been slow in collecting their crews and had lost precious time in arriving at fires. The second defect was the failure of the wardens to patrol fires adequately after they were under control. Almost all second day fires were due to this defect. Consequently each trained fire crew employed upon state forest consisted of two units: A “flying squadron” of eight or ten men were employed on a forest within easy reach of a telephone where one man was kept on duty. A truck loaded with equipment was kept ready to start immediately for a fire. In this way useful work was done in a forest instead of having men idle at a fire station. The second unit was the “mop-up crew” of about six men sent in the evening after any large fire to patrol it and see that it did not break out again the following morning.

While this theoretical arrangement has not always been followed, the principles adopted in 1931 have continued; namely, speed in reaching a fire and proper patrol after it is under control.[(P170)] This revised method is largely responsible for the improved fire situation since 1931. The crews in the Western District were directed by District Forester Parker from his Torrington office. Those in the rest of the State were directed from the Hartford Office either by Mr. Lathrop or by me.

In the spring of 1931 the nine flying squadrons attended 125 fires, and with the aid of fire wardens held them down to an average of 12.1 acres per fire. In the following spring there were fifteen of these flying squadrons on state forests. Up to this time fire wardens had shown little interest in employing trained crews, but when it was demonstrated how much more efficient such crews were, fire wardens registered forty-two crews. The largest fire in 1931 covered only 248 acres, and there were only five fires in excess of 100 acres.

Somewhat before this the D.B. Smith Company had developed a five gallon knapsack pump which proved very popular with fire wardens and eventually replaced the double forester pump.

The inventory of equipment in the hands of fire wardens on July 1, 1931 included the following: 420 single forester pumps; 203 double foresters; 53 tank pumps; 822 knapsack pumps; 3,163 pails; 212 five-gallon cans; 1,388 wire brooms; 2,363 shovels; 67 axes; 151 hoes; 1,827 “fire tools”; 148 swatters and 61 lanterns. In addition there were four FitzHenry-Guptill power pumps and one Pacific power pump mounted on trucks each with approximately one-half mile of hose.[(P171)] These power pumps went to 78 fires in the spring of 1931, pumped on 23 fires an estimated 75,000 gallons of water in 62 hours. The cost of operating a power pump, including depreciation, labor and transportation, was estimated at $20.00 an hour. The above list of equipment is in striking contrast to the almost entire lack of equipment a decade previous, when the warden service was taken over by the State.

About this time Mr. Paul W. Stickel of the Northeastern Forest Experiment Station developed charts to estimate duff moisture contents and the degree of fire hazard. This chart was put into use is Connecticut on April 21, 1932. Between that data and May 26, 1932 there were twenty-four days of extreme fire hazard. There were 380 fires on those days, but none burned more than one day, and the largest fire covered only 411 acres. Thus there was a marked improvement between 1930 and 1932.

By 1933 the fire lookout system had come of age. In other words there were now enough stations to make triangulation possible so that fires could be located accurately. In the first few years when there were only a few widely scattered stations, fires were located according to the observer's knowledge of the country, so that in many cases wardens, notified by local residents, reached the fire before the lookout towers could get crews to the fire. Mr. Lathrop, with the assistance of Mr. C.W. Standish of Lebanon, had developed the technique of erecting steel lookout towers so substantially that they held even against the great hurricane of 1938. By the spring of 1933 there were six of these steel towers ranging from 47 to 75 feet high.(P172) These were: Guilford, Oxford, Johnnycake Hill in Burlington, Soapstone Mountain in Somers, Sterling, and Norwich. In addition to these there were still in operation; Mt. Ochepetuck in Union, Dennis Hill in Norfolk, Storrs, Mohawk wooden tower, Travelers Tower in Hartford, a wooden tower in Beacon Falls, the Yale Forest tower in Union, and a private tower in Groton, making fourteen in all.

The practice was adopted of issuing gold badges to wardens upon the completion of twenty years' service. In 1930 such badges were issued to the following:

Burr F. Beach, Trumbull	Frank L. Date, Franklin
Charles S. Fenn, Prospect	Walter Tanner, Voluntown
Charles G. Keller, Easton	Ard Welton, Plymouth
J.O. Burdick, Norwich	Elliott B. Bronson, Winsted
John M. Larned, Stafford	Reuben J. Keller, Bridgewater

The Travis gold badge for Litchfield County was given in 1929 to Edwin Curtiss of Northfield. In 1930 it went to Hollis D. Griffin of Litchfield.

In the summer of 1930 a fire wardens' field day was held at Hammonasset State Park. After a bountiful shore dinner the wardens and their wives entered the various games arranged by Mr. Lathrop. Some three hundred people attended and it proved so popular similar meetings were held in subsequent summers. In these various ways an esprit de corps was built up which was an important factor in the improvement of the service. In those years seldom a day passed when the office was not visited by one or more fire wardens. While these calls were time consuming, the personal relations built up in this way were productive of good results.(P173)

CONNECTICUT AGRICULTURAL EXPERIMENT STATION

In 1931 the Station published Bulletin 330(Part II), "The Relation of Soil Factors to the Growth of Red Pine in Plantations" by Hicock, Morgan, Lutz, Boll and Lunt.

The presence of European Pine Shoot Moth had been reported for a number of years prior to 1929, but by that year its population had built up to a point where many stands of red pine, especially in the southern part of the state, showed serious damage. In cooperation with the entomologists, the forester of the Station made exploratory surveys, and some experimental work in hand clipping of infested buds was carried out. The cost of such work proved prohibitive, and it was evident that the insect could not be kept under satisfactory control by hand clipping.

With the disappearance of the chestnut the problem of fence posts for farmers, the state and town highway departments and others became acute. Of the forty species of trees in the state, very few are durable in contact with the soil. For some ten years, beginning in 1928, Mr. Hicock was engaged in experiments in treating posts from various species with creosote by the open-

tank method. Most of this work was done in cooperation with the State Forester and the State Highway Department. For some years these experiments were carried on at the Highway Department headquarters in Portland.(P174)

PRIVATE FORESTRY

As in previous years the most noticeable interest on the part of private forest owners continued to be in forest planting. Mr. Hicock reports the distribution of nursery stock by the Experiment Station during this period as follows:

1929	1,482,125
1930	1,512,210
1931	1,411,850
1932	490,715

The sudden drop in trees planted after 1931 was due to the depression. The Experiment Station was obliged to destroy many trees for lack of orders. Altogether in 1929 over 2,000,000 trees were planted in the state distributed as follows:

Farm Lands	463,300
State Lands	623,500
Other private & cooperate lands	985,600
Total	2,072,400

At the time of the forest planting conference, it was estimated that there were over 16,000 acres of forest plantations in the State as follows:

On state forests	1,690
Watersheds, public & corporate	4,725
Private lands	10,195
Total	16,610

Throughout this period Mr. Alain White was getting together his splendid tract in Litchfield and adjoining towns, which eventually reached 5,000 acres. Most of the area had at one time been agricultural land, but under changed conditions had ceased to be profitable for farming. One portion, called the Catlin piece, is climax forest of hemlock and hardwoods. For many years Mr. White continued his program of forest planting on the open lands. Mr. Castle, a practical woodsman, was in charge of the work.

As far back as 1909 Mr. Frederick C. Walcott and Mr. Starling Winston Childs had purchased a tract of 700 acres, mostly abandoned pasture land in Norfolk.(P175) By 1920 the original block of some 3,000 acres was about complete, but they continued to acquire additional areas until they had built up a tract of 6,400 acres, three-quarters in the southwest portion of Norfolk and one-quarter in Canaan. While the original purpose was to have a wildlife sanctuary where they and their families could enjoy nature, they did some forest planting beginning in 1917, chiefly under the advice of Dean Henry S. Graves. The chief species used were white and

red pine, Norway spruce, and Douglas fir. The condition of the natural woods at the time of acquisition was much like that of other land in the northwestern part of the state, which had been cut over again and again to produce charcoal for the ancient iron industry. It consisted of a young sprout growth of birch, poplar and pin cherry. In the more remote sections, however, there were clumps of virgin timber totaling approximately 100 acres. These are mostly hemlock stands from 300 to 400 years in age. There are also several areas of timber over 100 years old, but two-thirds of the forest is under sixty years old. Throughout Senator Walcott's life this tract was considered chiefly important as a wildlife sanctuary, and is mentioned here chiefly because of the importance which it was later to assume as a forest managed under sustained yield principles.

Figure 41. Charcoal pile ready was firing in Burlington, CT circa 1913 (CAES archives).

The Whittemore plantations in Middlebury had by this time attained sufficient size to be the most valuable demonstration of private planting in the state. Mr. William Shepardson still had charge of the forestry, and began about this time to make systematic thinnings under the advice of the Experiment Station.

Mr. Goodwin Beach of Hartford, later President of the Connecticut Forest and Park Association, had become much interested in forestry and had begun planting and thinning on his 300 acre tract in Vernon.(P176)

Mr. James L. Goodwin continued the practice of forestry on his tract, Pine Acres in Hampton and Chaplin, as mentioned in the previous chapter. He was fortunate in having an enthusiastic forester, Edson Stocking, to manage it for him. In 1930 he planted 10,000 red and white pines for timber and 6,000 Norway spruce for Christmas trees. In the fall he purchased and installed a sawmill near the railroad track. Thinnings produced 18,500 board feet of logs, and 265 cords of fuel wood. One hundred eighty-five spruce were cut and sold as Christmas trees.

In 1931 he acquired an additional tract with twenty acres of old pastures and 120 acres of woodland, much of it fine old white oak timber. It also had an apple orchard beginning to bear fruit. Mr. Goodwin has successfully combined apple growing with forestry. He planted that year 21,000 trees. Thinnings produced 15,280 board feet of logs and 400 cords of wood. In December 139 Christmas trees were marketed.

In 1932 additional land was acquired, including an interesting four acre piece known as "Governor's Island" because it had belonged back in 1843 to Governor John Cleveland. Because of its inaccessibility, this was practically virgin forest with large pines, hemlocks, tulips, oaks, beech, hickories and dead chestnut. Thinnings that year produced 300cords of wood and 48,000 board feet of logs, including the last of the dead chestnut. In December, 344 Christmas trees were marketed. Mr. Goodwin's accurate record of his proceedings is a very valuable forest record. It is regrettable that there are not more such records of private forest practice.

The above are the most conspicuous examples of forest practice in this period. Extension Forester Gibbs was active throughout the state and persuaded some farmers to attempt forestry operations.(P177)

As early as 1932 I recommended the employment by the Department of a trained marketing specialist, who would work in close cooperation with the Extension Forester in advising forest owners as to the best way of marketing their products. It was my belief that when the large areas of state forests that had been acquired accumulated sufficient growing stock, it would be possible to induce new wood-using industries into the localities, which would market wood from private forests as well as from state forests. Manufacturers needed to be assured of a sufficient nucleus before they would invest in a plant.

STATE GRANT TO TOWNS IN LIEU OF TAXES ON STATE FOREST LAND

The state law provides that the grant paid to towns in lieu of taxes on state-owned land is to be arrived at by multiplying the number acres of such land, treating each class separately, by the average assessed value per acre of similar land, which is taxable in such town. The following table shows that in 1930 the average grant paid by the state on state forest property was eighteen cents per acre. It will be seen that there was considerable variation from seven cents per acre in Salisbury and Willington to thirty-five cents in Waterbury. In seven towns the grant was ten cents or less; while in six towns it was thirty cents or more. All the rest were between ten and thirty cents.

FEDERAL POLICY

(P179)Because of the close relationship of Federal to State policy it may be well to mention proposals made in Washington at this time. On April 10, 1930, under authority of Congress, President Hoover appointed a commission to study and report on the conservation and administration of the public domain. A twenty member commission headed by James R. Garfield[22] devoted eighteen months to the study. The executive secretary of this commission was a young man who knew nothing about the subject. I met him at forestry meetings where the U.S. Forest Service was undertaking to educate him. The recommendations of the commission included acquisition of additional "*areas important for national defense, reclamation purposes, reservoir sites, national forests, national parks, national monuments, and migratory bird refuges.*" With the accomplishment of those objectives "*the production of forage should be granted to the states that will accept them*". This report was shelved and in 1934 the Taylor Grazing Act became law so that for a time the public land question appeared settled.

Mr. Robert Y. Stuart had succeeded Col. William B. Greeley as fourth Chief Forester of United States in 1928 and held this position until his death in 1933. Mr. C.B. Tillotson was Forest Inspector for the Forest Service covering New England during this period. From 1921 he had handled the cooperative projects from Washington, but in 1925 he moved to Amherst, Mass., and worked out of Amherst until he was promoted to be Assistant Regional Forester under Mr. Evans in 1935. He was transferred to California in 1936.(P180) Mr. Tillotson was conscientious in his work and had most pleasant relations with all the foresters of New England. He was most helpful to us in our cooperative projects with the U.S. Forest Service.

[22] 1. "American Forests, November 1952

AVERAGE GRANT PER ACRE PAID BY THE STATE TO TOWNS HAVING STATE FOREST LAND - IN 1930* (P178)

TOWN	$	TOWN	$
Ashford	.24	Pomfret	.30
Barkhamsted	.32	Portland	.10
Burlington	.26	Salem	.13
Canaan	.12	Salisbury	.07
Chaplin	.19	Sharon	.10
Chester	.15	Simsbury	.25
Clinton	.12	Somers	.13
Cornwall	.16	Stafford	.11
Deep River	.09	Thomaston	.30
Eastford	.20	Torrington	.12
East Hampton	.10	Union	.16
East Lyme	.20	Voluntown	.17
Ellington	.13	Waterbury	.35
Glastonbury	.12	Watertown	.35
Goshen	.23	Westbrook	.16
Griswold	.14	Willington	.07
Guilford	.20		
Haddam	.10		
Hampton	.15		
Hartland	.24		
Kent	.17	**State Average**	**.18**
Killingworth	.30		
Litchfield	.25		
Madison	.17		
Marlboro	.14		
New Fairfield	.20		
New Hartford	.12		
North Canaan	.25		
Plainfield	.25		
Plymouth	.24		

*This table is based upon figures furnished in 1953 by Mr. Harry McKusick, Silviculturist

CHAPTER IX. THE GOLDEN AGE OF FORESTRY 1933 - 1938

Part I. Federal Relations

THE CIVILIAN CONSERVATION CORPS (C.C.C.)

(P181)Industrial and economic conditions throughout the country had grown steadily worse since the break in the market in October 1929 with the result that Governor Franklin Roosevelt was elected President in November 1932 instead of Herbert Hoover. In spite of the Reconstruction Finance Corporation, an increasing number of banks failed, creating a sort of national hysteria. The country was therefore ready for almost any remedial measures that the new Administration might propose. This is not the place to record the much debated monetary reforms that were adopted, but social reforms undertaken had a marked effect upon the forests of the country. Up to the 1929 depression, unemployment relief had been largely a local problem although the government-owned western land available for settlement had served as a cushion in former depressions. Such lands were no longer available. During the Hoover Administration a large number of unemployed men had congregated in Washington seeking relief, and were dispersed by Federal troops. This was undoubtedly a factor in Hoover's defeat. However, it probably influenced Congress to pass an Act to relieve destitution which carried a large appropriation and was approved by the President [on] July 21, 1932.

The attitude of the new Administration was that people needed work rather than charity and that the economic problems of the country could only be solved by creating new buying power among the masses.(P182) Immediately after Roosevelt's inauguration the newspapers began to carry stories of the President's plan to employ large members of young men in improving the forests. On March 31, 1933, President Roosevelt approved an Act of Congress which authorized the President "to provide for employing citizens of the United States, who are unemployed, in the construction, maintenance and carrying on of works of a public nature in connection with the forestation of lands belonging to the United States or to the several States, which are suitable for timber production, the prevention of forest fires, floods and soil erosion, plant pest and disease control, the construction, maintenance or repair of paths, trails and fire lanes in the national parks and national forest, and such other work on the public domain, national and state, and government reservations incident to or necessary in connection with any projects of the character enumerated, as the President may determine to be desirable."

Under authority of this Act, President Roosevelt created the Civilian Conservation Corps with an authorized strength of 250,000 men to be housed in camps throughout the country, and appointed Hon. Robert Fechner as Director. Mr. Fechner was assisted by four departments of the government - Labor, War, Agriculture and Interior. The Connecticut quota, based upon the State's population, was 3,250 men. Of these, 250 were local experienced men and, 3,000 were young unmarried men between the ages of 18 and 25 years. Under executive order signed June 7, 1933, the President added 25,000 veterans of the [First] World War. Connecticut's quota of veterans was approximately 500 men.(P183)

Soon after the passage of the Act, all State Foresters and officers of the United States Forest Service and United States Park Service were called to Washington for instructions on April 6. I attended this meeting which was held in a government building. A large group was present, and

there were several speeches but all of a very general nature. We had expected instructions as to how the camps, were to be administered, what kind of work would be permitted, how the financing was to be handled, etc., but no detailed information was forthcoming. I was appointed with two other foresters whose names I have forgotten, as a committee to make recommendations. Upon consulting the next morning with Major Robert Stuart, Chief of the United States Forest Service, I learned that he was as much in the dark as the rest of us as to the details of the programs. Apparently the President had not delegated authority to anyone to work out the details of this great undertaken. It appeared later in his administration that this was one of Roosevelt's faults. It was evident that Major Stuart felt keenly that he had not been taken into the President's confidence, and I believe that this was a contributing factor in his untimely death later in the year. It had been suggested that the men would be conditioned at army camps and then assigned to work camps operated by foresters. Our committee recommended among other things that the work camps should be administered by the United States Army to relieve the state foresters of innumerable details and allow them to concentrate on the work projects. This recommendation was adopted and the President finally decided to follow this course. Whether our recommendation had anything to do with this decision, I do not know.[(P184)]

Figure 42. Governor Cross at a forestry field day (Connecticut State Library collection)

Although some of the Army officers were not efficient and sometimes required more men for camp details than seemed necessary, the arrangement as a whole worked well. For most of the period the Connecticut camps were under the direct supervision of Col. William H. Wilson stationed at Ft. Wright on Fishers Island, and our relations with him were always most pleasant. Connecticut men, after acceptance by an enrolling officer, were sent to [Ft.] Wright where they were given a thorough physical examination, were vaccinated for smallpox and inoculated for typhoid and paratyphoid. They were then sent as a group to a work camp which was under either a captain or first lieutenant who was assisted by second lieutenants and a doctor. Unfortunately, no experienced cooks were employed, and as most of the men had no experience in cooking, the meals left considerable to be desired. I believe enough food would have been saved by the employment of trained cooks to more than cover their salaries, and with much more tasteful and healthy food. The men at first camped in tents, but frame barracks were soon built by them.

My first responsibility was to select superintendents and foremen to have charge of the work projects. This was done entirely by personal interview. There was such a large number of men out of work there was no difficulty in securing high grade and efficient men. Engineers, foresters

and business men of experience were selected as camp superintendents. Some of the foremen were trained foresters, some skilled workmen and others were untrained but practical men. Fortunately, most of our supervisory men had been appointed before Congressmen awoke to the fact that there might be a lot of political patronage in the selection of these men. We therefore received a directive ordering that certain grades of foremen should be chosen from lists supplied by Congressmen.(P185) A few foremen were so selected, but Governor Cross never made a suggestion that politics should play any part in the forestry work, and consequently much of the credit for the efficiency of the Connecticut camps belongs to him. In some states where the Governors insisted in using the camps for political patronage, the small amount of work accomplished amounted to almost a scandal.

At first, eight camps of 250 men each were established in the State, A later authorization for four camps of 200 men each brought the total authorized strength up to 2,800 men. Since the Connecticut quota was 450 men in excess of this figure, two more camps were established late in the fall of 1933, thus bringing the total to fourteen camps. As government regulations provided that the camps should be on land owned by the Nation or State, ten camps were established on State Forests, three on State parks, and one on the State military reservation in East Lyme. Each camp received the name of some prominent man as well as a number.

It soon became evident that we would be flooded with directives from Washington and that there would be a great amount of bookkeeping in connection with this work. I selected Mr. Courtice Berry whom I knew, to head up this work. Mr. Berry was meticulous in handling the innumerable details of ordering tools supplies, in the selection and supervision of blacksmiths who kept the tools in good shape, and in regard to the bookkeeping. Millions of Federal dollars were accounted for to the entire satisfaction of the accounting officers who made periodic inspection trips from Washington. From my later experience, I am satisfied that I would never have secured such an efficient man through a merit system. Mr. Berry built up a small but efficient force of stenographers and bookkeepers who were housed near my office in the State Office Building.(P186)

The supervision of the work projects was the responsibility of the district foresters of the districts in which the camps were located. The camp superintendents were directly responsible to them. I also made periodic inspections of work in progress, and made written reports to the district foresters with suggestions and recommendations. Mr. Schreeder had charge of the important surveying and type mapping project. Mr. Henry B. Buck, a prominent engineer of Hartford, was employed to direct the road building program. As the work progressed, other specialists were employed.

Because of the magnitude of the problem in administering such a large force throughout the country, changes were constantly being made by the Washington office. Thus, six new camps were established in Connecticut in 1935 in order to take care of the entire state enrollment, but two of the older were closed the same year and two more in 1936 so that by the middle of 1936 there were sixteen forestry camps in operation in the State besides one state park camp.

A report issued by the Connecticut Emergency Relief Commission indicated that 16,234 men had been enrolled in the State for the C.C.C. camps up to July 15, 1936, and that the enrollment at that time was 4,172. Since the greater part of the enrollee' pay was sent directly to their dependents, $1,251,600 was the annual income of these dependents. The report showed that only ten towns of the State had failed to enroll men for this project. Naturally, large cities

benefited most. Hartford had supplied 1583 enrollees; New Britain, 1548; New Haven, 1294; Bridgeport, 1216; and. Waterbury, 1197.[(P187)] The increase in the number of enrollees was caused by reducing the age limit to 17 years. After that, 26 per cent of the enrollees were 17 years or younger, and 26 per cent were 18 years. This reduction in age was a mistake from the standpoint of work accomplished but may have been advantageous from the educational standpoint. Only 71 per cent of the 4,172 [Connecticut] enrollees were employed in Connecticut camps. The remainder was distributed about 21 per cent in other New England camps, and 8 per cent in Oregon camps.

In its function of directing the work projects of these camps, the State Forestry Department directed the average annual expenditure of $589,438 of government funds. This does not include money spent by the Army for building and maintenance of the camps, or for food, clothing, officers' salaries, etc., nor does it include money paid to enrollees and their dependents.

Figure 43. Montage of C.C.C. photos (circa 1935) - clockwise from top left: Camp Graves, Camp White, clearing West River Road in American Legion State Forest, cordwood saw rig in Meshomasic State Forest (CT DEEP archives).

Below is a list of the camps with the dates they were established and closed: (1933-1938)[(P187a)]

No.	Name of Camp	Location	Superintendent	Strength	Date Establish	Date Closed
51	Cross	Housatonic Meadow Park	T.C.Hood	250	6/20/33	4/1/41
52	Toumey	Mohawk Forest	H.J.Ord F.A. North A.J. Brooks	250	6/25/33	7/26/41
53	Robinson	Tunxis Forest	A.R.Kienholz O.H.Schroeter S.A. Niven	250	6/13/33	7/28/41
54	Walcott	Paugnut Forest	P.L.Buttrick J.L.Moglia R.E. Dexter	250	5/28/33	5/28/37
55	Graves	Nipmuck Forest	O.H.Schroeter S.A.Niven	212	5/27/33	4/22/36
56	Fernow	Natchaug Forest	E.A.Currier H.D.Pearson E.H.Walker	212	6/29/33	5/28/41
57	Jenkins	Meshomasic Forest	J.Maher* C.H.Tracy	250	6/14/33	1/7/36
58	Lonergan	Pachaug Forest	J.Maher * J.P.Roche	250	6/6/33	5/25/42
59	Roberts	Black Rock Park	H.C.Neal E.R.Hawkes	212	5/30/33	9/28/37
60	Roosevelt	Cockaponset Forest	R.P.McLaughlin E.Humphrey	250	5/23/33	3/31/37
61	Chapman	Military Reservation	H.D.Pearson O.H.Schroeter	212	6/1/33	10/30/35
62	Hook	Squantz Pond Park	E.Humphrey A.J.Brooks	212	5/24/33	10/30/35
63	White	Amer.Legion Forest	E.R.Hawkes H.C.Neal O.H.Schroeter	200	12/28/33	1/1/42
64	Filley	Cockaponset Forest	R.F.Coughlin	200	12/9/33	7/30/41
65	Hadley	Cockaponset Forest	E.L.Eliot H.V.Potter	200	9/5/35	4/4/41
66	Britton	Agri.Exper. Sta., Windsor	A.W.Jack	200	9/12/35	5/26/37
67	Buck	Meshomasic Forest	L.C.Blair	200	9/13/35	7/22/41
68	Conner	Shenipsit Forest	J.O.Maher A.W.Jack	200	9/5/35	5/23/41
69	Fechner	Wooster Mt. Park	A.R.Olson	200	9/12/35	5/24/37
70	Stuart	Salmon River Forest	S.Niven	200	7/8/35	5/31/37

*When the camps were first organized, Tracy was Superintendent of Camp Lonergan, Maher of Camp Jenkins, but after a few weeks they were exchanged.

It is evident that there was considerable waste of government money in building so many camps in a small state especially as several were closed about the same time others were built. Thus, Camps Chapman and Hook were closed in October 1935 just after establishing 6 new camps. Two others were closed early in 1936. As June 30, 1938, there were 10 camps still in operation out of 20 camps built. The State Park camp is not included in this list.(P188)

The camps were named for the following men: Camp 51 for Governor Cross; 52 for Professor James W. Toumey of the Yale School of Forestry; 53, for Lucius F. Robinson, Chairman of the State Park and Forest Commission; 54, for Senator Frederic C. Walcott; 55, for Dean Henry S. Graves of the Yale School of Forestry; 56, for Dr. B.E. Fernow, first technical forester in the United States; 57; for Dr. E.H. Jenkins who, as Director of the Connecticut Agricultural Experiment Station, started forestry in Connecticut; 58, for Senator Augustine Lonergan; 59, for the late Harley Roberts of the Taft School of Watertown, through whose efforts the Mattatuck State Forest and Black Rock State Park were established; 60, for President Franklin D. Roosevelt; 61, for Professor H.H. Chapman, President of the Commission on Forests and Wild Life; 62, for James W. Hook, Chairman of the Connecticut Unemployment Commission at the time of the first enrollment; 63, for Alain C. White of Litchfield, who had contributed so generously for the establishment of State parks and forests in Litchfield County; 64, for Walter O. Filley, fourth State Forester of Connecticut; 65, for former President Arthur Hadley of Yale, a firm supporter of forestry; 66, for Dr. William Britton, long time State Entomologist; 67, for Henry Buck who was killed in an auto accident while engaged in supervising road construction in our camps; 68, for General Fox Conner, Commandant of the First Corps Area at Boston; 69, for Robert Fechner, Director of the C.C.C. camps; 70, for Robert Stuart, Chief Forester of the United States at the time the camps were established, and who lost his life in a terrible accident soon afterwards.

A uniform working week of forty hours was established by Director Fechner. This was based upon five days of eight hours each. However, it was interpreted to include the time going to work and returning besides an hour for lunch. As many projects were from twenty to thirty miles from camp, the working day was often reduced to five or six hours. The rule was later modified to require a minimum of six hours work, and a further modification required the men to work on Saturday to make up for a rainy day during the week.(P189)

After the camps were well established and trucks were available for transportation, about 84 per cent of the enrolled men were regularly employed on projects; 12 per cent were employed by the Army about camp, and 4 per cent were sick or absent,

There had been little planning for the C.C.C. in advance of its establishment. The President’s objective was undoubtedly to provide healthful outdoor employment for a large number of young men who were out of work, and to distribute Federal money among a large number of needy families. The plan had been to work mostly with hand tools. When it became evident that road construction would be an important project throughout the country, provision was made for the purchase of heavy equipment. By June 1936, our 16 camps were supplied with 24 one-half ton trucks; 107 one and one-half ton dump trucks; 65 one and one-half ton rack trucks; and one 15-ton tractor trailer; 14 tractors; 11 graders; 12 tractor trail builders; 15 compressors; 24 jackhammers; 3 diaphragm pumps; 2 cement mixers; 5 welding outfits; 4 motion picture outfits; 1 rock grinder; 2 transits; 1 rotary scraper; 7 snowplows.

The most important work projects in Connecticut were as follows: forest survey and type

mapping; fire prevention and control; control of forest pests; road and trail construction; forest improvement; forest planting; recreational developments; construction of administrative buildings; nursery work; stream improvement for fish.

Fundamental to the administration of the state forests was to have them accurately surveyed and mapped and the boundaries well marked especially for the benefit of hunters. At the time of the establishment of the camps, 74 per cent of the state forest area had been surveyed and 58 per cent had been type mapped.(P190) By July 1, 1938 we had surveyed 97.9 per cent of the 69,985 acres of state forests. The twenty state forests had been divided into 49 blocks. A block is the largest division of a forest and includes all holdings bounded by certain important public highways. These blocks in turn were divided into 632 compartments with an average of 104 acres per compartment. Boundaries of compartments may be woods roads, streams or ridge tops. Wherever compartments corner on traveled roads, they were marked with wooden posts painted white at the top and marked with figures showing the number of the compartment and the area. Such posts are of great value to anyone wishing to locate himself from a map. All outside boundaries were marked with metal circular discs; about 95 per cent of the area had also been type mapped. These maps shoved that over 65 per cent of the state forests was mixed hardwoods; about 8 per cent softwood-hardwoods; nearly 8 per cent softwood plantations; and 7 per cent abandoned farm land, water, oak ridge, hardwood and cedar swamps.

The construction of roads and trails in forests is fundamental to the permanent practice of forestry. They are obviously essential for fire protection especially in controlling fires. Equally obvious is their importance for the recreational use of forests for only a small percentage of the people will walk any distance from their cars. For this small group, foot trails are essential. The difference between wasteful lumbering and forestry operations is very largely a matter of roads. From the earliest days in this country it was the practice to cut out rough roads into a forest, which could be used by ox or horse-drawn vehicles, to remove the best of the logs and then abandon the land for a long period until a new crop was grown.(P191) In the meantime, the roads, usually very steep, became brook beds and were wholly destroyed. Under such conditions, the owner could not afford to leave half-grow trees and must necessarily remove all that were merchantable. Whereas, with well-located and graded roads which can be used by trucks, owners can return to the same areas at frequent intervals removing only mature timber or trees which need to be cut for the improvement of the stand.

Since the law providing for the C.C.C. did not mention road building as one of its objectives, the United States Forest Service invented the term “truck trail.” The specifications for these trucks trails did not permit the construction of wide highways. On the other hand, they did require that these woods roads should be well located with regard to grades, curves, etc., that they be well-drained and surfaced with gravel. Most of these roads were narrow but were provided with frequent turnouts where cars could meet. So far as possible, good trees were spared in locating these roads, and no clear cutting along the roads was permitted as is necessary along public highways. It was intended that the public use of these roads should be confined to people who used them for enjoyment of the forests, and that such people wished to feel that they were in the forest. One may drive for miles over the public highways in the Adirondacks Preserve without any feeling for being in a forest. Such roads may be necessary in such a large region but are not needed in our small forests as they are not intended for through traffic from one town to another.(P192)

We early decided that to meet all the requirements above mentioned we would need an

average of one mile of road for every 500 acres of state forest. The fact that many of our areas were scattered necessitated the building of more roads than would be required in a consolidated area. This is a further reason for consolidating the lots in a state forest purchase area. Unfortunately, the land purchasing agent is more interested in buying land where it is cheap regardless of location, and hence every appropriation has tended to produce more scattered holdings although within approved purchase areas.

By the first of July 1938, we had completed 150 miles of such truck roads, or one mile to 466 acres. Besides this, nearly 500 miles of old woods roads had been cleaned out so that they could be used by horse-drawn vehicles, and 80 miles of foot trails had been built and marked. About 35 per cent of all C.C.C. labor was expended on road construction.

Because of its size and the scattered blocks of the Cockaponset State Forest, the greatest extent of roads - 23 miles – was built in this forest. The Pachaug Forest which had about the same area came next with 21 miles. Four other forests - Housatonic, Nepaug, Peoples and Tunxis - had from ten to twelve miles each, while most of the other forests had from three to eight miles each. Two small forests - Nye-Holman and Salmon River - had one mile each.

Figure 44. Dedication of the Fernow Bridge (Connecticut State Library collection)

Experiments made with the use of calcium chloride indicated that one treatment a season is sufficient to maintain a shady road in good condition, while two treatments are required in sunny stretches. Culverts furnished at first were of metal, but as the work progressed the Government furnished cement culverts which are more lasting.[(P193)] Over thirty road bridges were constructed perhaps the best being over the Natchaug River, dedicated by Governor Cross on June 4, 1934. It was built entirely of stone and timber from the forest and is 74 feet long. In the floods of 1936 it was somewhat damaged, and considerable work was expended in strengthening it.

On June 15, 1935, the Connecticut Forest and Park Association dedicated the Toumey Road in the Mohawk State Forest. This road leads from the state highway at the summit of Bunker Hill through the forest to the summit of Mohawk Mountain. On this occasion, Dean Henry S. Graves of the Yale Forestry School, read a paper on the life and work of the late Professor James W. Toumey of Yale.

On May 18, 1935, a trail in the American Legion State Forest was dedicated to the memory of the late Henry Buck, our supervisor of road construction, who was killed in an automobile accident on August 11, 1934.

Many important administrative buildings were built or improved by the C.C.C. In the Mohawk Forest the old farm house, occupied by Ranger Hubert Hubbell, was improved. A sawmill shed, 60 x 24 feet, was built to house the sawmill which had been presented to the State

by Mr. Curtis Veeder of Hartford. Sawing was commenced here in November 1935 and produced a considerable amount of lumber used in various construction projects. In. connection with this, sawdust storage shed and a warehouse and shed for lumber storage were constructed.

In the Tunxis Forest a forest Ranger house was built.

In the Peoples Forest an old farm house was repaired as a dwelling and office for the Forest Ranger, and small sheds were built for the storage of lumber and for packing nursery stock.(P194)

In the American Legion Forest an excellent administration building was built for the Western District with suitable office and drafting rooms. Near this three old houses were repaired, one for the District Forester and two for other forest employees.

In the Paugnut Forest a stone house was built for recreational use.

In Meshomasic Forest a building was made with cement foundations for sawmill, a lumber storage shed, and creosoting plant for fence posts. Also, a brick charcoal kiln was constructed.

In Natchaug Forest a Ranger's house was improved, a sawmill shed and sawdust and planer shed built. A used sawmill and steam boiler was purchased for $250 with Federal money in order to make lumber for various projects in the Eastern District. A warehouse and machine shop and three lumber storage sheds were built.

At Nipmuck State Forests, a small cabin was built for a caretaker.

At Nye-Holman Forest, the District Forester's house was improved with suitable office and drafting rooms.

At the Pachaug Forest, the District Forester's house was improved and shingle mill shed and lumber storage shed was built, and later, a building with cement foundation for a sawmill, also a brick charcoal kiln.

At the Cockaponset Forest, the Ranger's house was improved and a garage and lumber storage shed were built, also a brick charcoal kiln.

Perhaps the best building constructed was the Nature Museum built in the People Forest. This handsome building of field stone was finished inside with chestnut. Following the example of the Nature Museum in the Bear Mountain State Park, it was maintained for several seasons under the supervision of Mr. Russell Lund, and was well attended.(P195) In connection with it, Mr. Lund developed a nature trail.

The building of sawmill and lumber storage sheds in several forests was to enable us to set up our portable mills in various forests and saw boards more true to thickness than can be done in a temporary set up. If the plan had been followed, a large amount of lumber could have been furnished to State departments and institutions with considerable saving to the State.

About 18 per cent of all labor was expended upon the control of forest insects and diseases amounting to over 416,000 man days in 5 years. This kind of work naturally was not confined to public lands but was done wherever there was danger of the spread of serious pests.

About 70 per cent of this labor was devoted to the control of the Gypsy Moth which had been increasing rapidly in the northern part of the state during the past few years. The Federal government maintained a barrier zone the whole length of western New England and eastern New York including Litchfield and Fairfield Counties in Connecticut in an effort to keep the

insect from spreading westward. Before the establishment of the C.C.C. the government efforts were concentrated on eliminating the pest from this zone, and the State Entomologist used his meager resources in controlling the worst infestations in the remainder of the state. Under the direction of the Federal Bureau of Entomology and Plant Quarantine, the C.C.C. men were used in an effort to control the insect in the belt between the Connecticut River and the barrier zone. Some work was also done east of the river. At that time, spraying from helicopters had not come into vogue.(P196) Three methods of control were used: scouting and creosoting egg masses from September to June; burlapping trees and crushing caterpillars from June to August; and ground spraying in June and July.

Dr. Burgess, who had charge of this work for the Bureau, had grown up with the idea that the Gypsy Moth could be eliminated. He therefore insisted in spending a great deal of time in scouting territory which was very lightly infested, if at all. Scouting was done at the rate of 5 to 10 acres per man day. In a total area of 1,036,000 acres scouted in the first three years, egg masses were only found at the rate of one for every ten acres. In the light of present knowledge, it is realized that the Gypsy Moth cannot be eliminated, and that only heavy infestations are dangerous to our forests. Such scouting of lightly infested areas was therefore a waste of time, and the labor could better have been employed on more productive projects. The heavily infested areas at this time were confined to Barkhamsted, Hartland, Granby, Burlington, New Hartford, Canton and Simsbury, west of the river; and Stafford, Union and Eastford east of the river.

In the early summer, the caterpillars are crawling up and down trees. When a burlap band is placed around the tress, the caterpillars will rest under this to avoid the heat of the day, and can easily be crashed. This required from 5 to 7 man days per acre. As it was only done in known infestations, the number of caterpillars destroyed varied from 50 to 300 per acre.

Considerable time was spent is cleaning 1,756 acres of heavily infested areas in order to make eradication more complete. This was very time-consuming requiring about 30 man days per acre.(P197)

To attempt to control Gypsy Moths without spraying is a good deal like road-building without heavy equipment. During the period here under consideration, the Bureau of Entomology supplied no equipment for spraying although it did later. Had such equipment been available during this period, it is safe to say that the work could have been twice as effective with half the expenditure of labor.

It was becoming evident to foresters that the Gypsy Moth could not be eliminated, and that forest management must take into consideration the likelihood of this insect being a permanent pest. To make our forests more resistant required the gradual reduction of favored food trees such as poplar, gray birch and the oaks to less than half of the total stand. Since evergreen trees are killed by one defoliation, and since the insect cannot eat this foliage in its younger period, all evergreen forests should be protected by the reduction of favored food trees, leaving only the best oaks in mixture with pines and hemlock and such hardwoods as maple, tulip and hickory. All forest plantations in the state forests were protected in this way.

At the time the C.C.C. was organized, the European Pine Shoot Moth was causing general alarm about the threatened damage to thousands of acres of red and Scotch pine. This insect works in the buds and deforms the trees badly, often beyond use. Over 12,000 acres of forest plantations were thoroughly covered not only once, but much of the area two or three times. Thousands of infested tips were destroyed. Fortunately severe cold winter temperature has been

found to greatly reduce the numbers of this insect, creating much more favorable outlook for raising those trees successfully. Work of controlling the native white pine weevil was largely confined to the state forests.(P198) Infested leaders were cut and burned so far as they could be reached from the ground. There is great irregularity in the occurrence of this insect. Some plantations are badly infested while in other regions they can hardly be found.

Next to the Gypsy Moth, the Blister Rust of the white pine required the greatest employment of any of the forest pests. Over 66,000 man days were consumed in pulling current and gooseberry bushes throughout the white pine sections of the state. This is a form of pest control which is well worthwhile because it requires many years for the bushes to return, and they probably will never be common again if proper precautions are taken.

The first elm in Connecticut known to have the Dutch Elm disease was found in 1933. It [the disease] was already well established in New York and New Jersey where 7,600 trees were removed in 1933 and 1934 and 6,300 trees in 1935. In Connecticut, 57 trees were removed in 1934 and 76 in 1935 and 1936. All of these were in lower Fairfield County except 4 additional trees in the town of Old Lyme within 100 feet of the original infected tree. A thorough sanitation campaign was put on within of this a mile of this infection, some of the boys from Camp Chapman being used. Camp Fechner was established near Danbury especially for this work. Over 100,000 dead and dying elms (mostly small) were removed and destroyed in the Fairfield County area as a sanitation measure. Federal scouts covered all the towns along the Sound, and the rest of the state was scouted by men from the Experiment Station, but no new infections were found. By 1936, infected trees had also been found in Virginia, Maryland, Ohio, and Indiana. In some of the swamps worked by Camp Fechner, as many as 40 dead or dying elms per acre were destroyed.(P199)

A diplomatic problem in connection with this work was to refuse projects which some people thought most important. For example, the tent caterpillar was considered by many a pest that should be eliminated. This insect has cycles, and in certain years makes our roadsides unsightly with its numerous web tents and defoliation. However, it disappears after two or three years and seldom kills trees. Another proposed project which was obviously impossible was to try to eliminate poison ivy from the state. Fire prevention and control was naturally an important project. Two timber towers were constructed with C.C.C. labor - one on Meshomasic Mountain and one on the Cockaponset State Forest, One steel tower, formerly at Savin Rock, was built on the Tunxis Forest in West Hartland. Later a steel tower was built in Redding on land donated to the State by the Protective Associations of the region, and the wooden tower built on Mohawk Mountain in 1922 was replaced by a steel tower in 1937.

Because of the prolific sprouting of Connecticut hardwoods, the best kind of fire line for this region is a well-shaded strip from which all dead and inflammable material has been removed. Over 50 miles of such fire lines were constructed in the state forests, All dead trees were removed from a strip 100 feet wide, and a central strip 15 feet wide was grubbed out. Of course; such fire lines are only of value for a few years unless they are maintained.

Of a more permanent nature were the large number of water holes constructed to provide water for fires. About 1,000 such holes were made on state forests and 200 on private property near the camps. In order to eliminate the danger of animals drowning, these holes after the first year were made saucer shape so that any animal can easily walk out.(P200) A circular hole, 4 feet deep at the center and having a radius of 6 feet, will hold 350 cubic feet of water; one with a

radius of 8 feet, 500 cubic feet; and one with a radius of 12 feet, 1,000 cubic feet. The value of these water holes in saving buildings was demonstrated several times with the result that many farmers have provided similar holes near their farm buildings.

During the fire season, a trained fire crew of ten men was kept at each camp doing landscape work but ready to respond to fire calls. Trucks were kept with fire-fighting equipment, and immediately upon receipt of a telephone call the men were called from their work by gong or whistle, and in several instances left camp in less than a minute.

The use of the C.C.C. for the development of recreational facilities was somewhat different in Connecticut than in northern New England where the state parks were under the State Forester. Since recreation here was distinctly the function of the Park Department, this project was left largely to Mr. Arthur Parker, Superintendent of State Parks, while chief emphasis of the Forestry Department was on forest administration and improvement. Although three of the camps were located on state parks, their administration was under the State Forester because the great majority of the men were employed in forestry projects. One additional camp on the Macedonia Brook Park was entirely under the Park Department.

Several important projects were carried on by Mr. Arthur Parker on the state parks with the C.C.C. To mention a few of the most important: A good graded road was built up to the tower on Haystack Mountain in Norfolk. Considerable work was put in in building a similar graded road on the Kent Falls Park.(P201) An entrance road was made to Mohawk Pond. An excellent road was made through the Devil's Hopyard State Park. At Rocky Neck State Park a large cement fish shed was demolished by the C.C.C. and the cement used to build the foundation of the pavilion later constructed on this parts. Some road work was also done in the Macedonia Brook Park, Black Rock State Park, Mt. Tom State Park, Hammonasset Beach State Park, and Squantz Pond State Park. A large amount of work was done on the Buttonball Brook State Park in making a recreational pond, but this was never completed.

The recreational facilities on the state forests are intended only to supplement those of the state parks and to accommodate people who like to get into the woods. No sales service was maintained. Since most of the picnic areas are small, they are not adapted for large crowds. In the fifty areas developed, 500 fire places were built and 1,100 tables provided. In most of the used areas, drinking water was provided through 30 dug wells, 4 driven wells, and 8 springs. All drinking water was tested by the State Board of Health. Bathing facilities were provided in the Tunxis Forest by building a dam, thus making Bragg Pond. In the Peoples Forest, bath houses were built on the Farmington River. A large amount of work was done in building an elaborate stone revetment to protect the bank of this river. Massacoe Pond was built in the Simsbury forest and proved particularly popular, being used by large crowds. Schreeder Pond in the Cockaponset forest involved a large amount of work in damming a brook and another small pond above this was made by improving a dam. Bath houses were built on Great Hill Pond in Meshomasic State Forest, at Moray Pond in the Nipmuck State Forest, and at Phillips and Green Falls ponds in the Pachaug State Forest.(P202) A very large amount of work was done at this last pond in constructing a long rock dam. A shorter dam was also built at Day Pond in the Salmon River State Forest. Another recreational project in this forest was the rebuilding of the old covered bridge as this was one of only two left in Connecticut. Four open Adirondack Shelters were built in the Peoples State Forest and one in the American Legion Forest.

Winter sports in the state forests were encouraged by the construction of ski trails in the

Tunxis, Mohawk, Paugnut, and Salmon River State forests. The last one proved to have little value because of the rarity of sufficient snow in that region.

Mr. Thomas Beck succeeded Senator Walcott as Chairman of the State Board of Fisheries and Game from 1931 to 1935, and was then followed by Mr. Oliver Ellsworth. Mr. Arthur Clark began work as Superintendent of this Board on April 1, 1932, and resigned to take a better position in Missouri on March 17, 1938. He was succeeded by Dr. Russell P. Hunter in September 1933.

Mr. Clark was always such a delightful gentleman it was a pleasure to do anything which he thought might improve the fishing and hunting in the state forests, and during these years the Forestry Department did a great deal of work of this nature. With the exception of the Mohawk and Mattatuck State forests which had been given to the State with a proviso prohibiting hunting,[23] all other state forests were available for public hunting.

One of Mr. Clark's projects was to plant a large number of fruit-bearing shrubs to provide more food for wild life. Over 45,000 such shrubs supplied by the Board of fisheries and Game were planted in the state forests. About one-quarter of these were Japanese barberry.(P203) Other shrubs planted in considerable numbers were Ibota privet, viburnum, snowberry, Japanese [multiflora] rose and honeysuckle. Altogether, thirty species were planted. Unfortunately, many of them were suppressed by the forest shade or died from other causes.

It soon became apparent that better results could be obtained by encouraging native shrubs than by planting. Accordingly, in forest planting strips of open land were left between areas planted with evergreens. These strips not only served as fire breaks but provided open areas for berry-bearing shrubs. The practice was adopted of leaving den trees for raccoons, squirrels and birds in our forest operations, and old apple trees as feed for deer and birds. Some small areas were left unplanted with forest trees in order to raise grain for pheasants. Wild grape vines which had formerly been cut, were left. Later, small openings were cut in hardwood stands so that berry-bearing shrubs could increase.

As mentioned in a previous chapter, Superintendent Titcomb had spent $1,000 in reconstructing the dam at Burr Pond in the Paugnut State Forest. For some time this dam had leaked considerably and it continued to get worse. One night, soon after the establishment of Camp Walcott in this forest, I was called at midnight and told that there was considerable danger of the dam going out and seriously flooding the village of Burrville below. Mr. Henry Buck and I drove out as rapidly as possible and met with the Mayor of Torrington and Superintendent Buttrick. Considerable work was done in repairing the dam but even after that it continued to leak, and it was evident that in entirely new cement dam must be substituted for the timber dam. The construction of this dam under Foreman Noble was one of the major projects of the C.C.C. Since this new dam was built the pond has been kept full and has been enjoyed by many fishermen.(P204) At the request of Mr. Clark, a new dam was also built at Day Pond in the Salmon River State Forest and at Darling Pond in the Natchaug State Forest. Stream improvement work was done under the direction of the Board of Fisheries and Game on the Natchaug, Salmon and Black Ledge Rivers. In the last stream, the elaborate system of check dams and barriers immediately resulted in better fishing. An attractive trout rearing pool was constructed in the Pachaug State Forest and other pools at the Berlin Fish Hatchery.

[23] Although this was held to be true for many years, in 1944 it was found that Mattatuck had no proviso prohibiting hunting, and in 1946 part of the forest was opened to hunting

All silviculture came under the heading of Forest Stand Improvement. About one-fifth of all C.C.C. labor was devoted to this project. Most of the state forest area had had no treatment since acquisition, which means that nothing had been done to them since they were previously cut over. A number of areas had been severely cut or burned or damaged by ice storms in the recent past. On many of these areas the young growth was not promising. Here “salvage cuttings” were made by cutting all remaining trees and preparing the land for forest planting. The average expenditure of labor for such work was 30 man days per acre about evenly divided between cutting and disposal of brush.

The most rewarding kind of forestry work in Connecticut and which should be widely practiced by forest owners is the weeding of young stands. This is mostly done with a machete and required an average of only 4 man days per acre. It is done in natural stands and forest plantations and consists in cutting back hardwood sprouts of inferior trees which are likely to overtop or rub against the favored species whether evergreen or hardwood. Increased height growth is soon apparent after such work.

An analysis of the state forests by age classes made on June 30, 1936 was as follows[(P205)]

Age in Years	Area Acres	Per Cent of Total
None	1,606.3	2.4
1 to 20	17,653.6	26.7
21 to 40	14,393.5	1.7
41 to 60	5,789.9	8.8
61 to 80	1,384.6	2.1
81 to 100	49.9	0.1
All [mixed] Ages	25,306.7	38.2
Total	66,189.5	100.0

This table shows that most of the state forest area was in the cordwood and small pole stage. Only a comparatively small part had any significant amount of lumber. Most of these stands had a great many dead, dying, crooked and deformed trees. Our problem was to get these stands into better productive condition as rapidly as possible. At this time there was so much enthusiasm for forestry we had every reason to believe that thinnings could be made at regular intervals. It was therefore our policy to cover as large an area as possible while we had C.C.C. labor, and follow these cuttings up with more scientific thinnings in ten years. Consequently, very few acres were thinned as heavily as subsequent events indicated they should have been. However, many of the stands were in such poor condition that the removal of all inferior trees would have left little for future growth and would have exposed the soil to deterioration. These improvement cuttings required about 16 men days per acre. It must be realized, of course, in regard to all these figures that these men were entirely unskilled in these kinds of work, that the working hours were short, and that there was practically no stimulus for maximum production.

By July 1, 1938, about 28,000 acres of the state forests had received some kind of improvement cutting. During this five-year period there was cut from the state forests mostly by C.C.C. labor, some 82,000 cords of wood, 177,000 fence posts, 50,000 poles, and 1,400,000 board feet of logs.[(P206)] Nearly one-half of the wood was consumed by the camps themselves for

heating and cooking; the rest was sold either as wood or charcoal. The kiln constructed in the Meshomasic State Forest had already proved itself worthwhile. This kiln held about 50 cords of wood. The burning required from 4 to 6 days, and an additional 10 days were allowed for it to cool. After some practice, the production was increased to about 40 bushels of charcoal per cord of wood. There was a good market at the time for charcoal for drying tobacco, and a considerable amount was taken by picnic parties for burning in the fireplaces. Other kilns were built in Cockaponset and Pachaug Forests, and about $10,000 worth of charcoal was sold.

Early in the C.C.C. program, all state foresters received telegrams asking if they would agree to reimburse the Federal Treasury for one-half the receipts taken in for the sale of products made by the C.C.C. Connecticut agreed to this arrangement, and in the course of the existence of the C.C.C. the State reimbursed the Government a greater amount than all other states combined. This was partly because we placed more emphasis on forest stand improvement than most states, and partly because of our excellent market for fuel wood.

The total sales of forest products cut by the C.C.C. from December 1933 to July 1, 1938 amounted to $107,394.50. Deducting for team hire ($2,888.65) left net receipts of $104,505.85. The amount sent to the U.S. Treasury for this period was $49,954.76.

Of course, forest planting was an important part of forest stand improvement.[(P207)] With the exception of small openings left for game feed, all open land in the state forests was planted with forest trees, also the land prepared for planting already mentioned. In some small openings in the forests, groups of evergreens, chiefly spruce, were planted. This was done for the triple purpose of enhancing the beauty of hardwood forests by relieving the monotony with a mixture, with the idea that these trees would eventually produce seed and increase the percentage of softwoods, and, thirdly, to improve the bird cover in rather open hardwood stands. Altogether about 3 1/3 million trees were planted in the five-year period so that the area of forest plantations in the state forests on July 1, 1938 was 7,000 acres. Of this, 1,600 acres had reached the age of eight years. The chief trees planted were red, white and Scotch pine (Riga variety); Norway and white spruce; european larch and Douglas fir.

At this time, three small forest nurseries were maintained in the Peoples, Natchaug and Nye-Holman State forests.

When the warm rains of the spring of 1936 hit the heavy accumulation of snow throughout New England, the ground was saturated and freshets resulted. On Wednesday, March 18, the Greenwoods Dam above New Hartford went out, resulting in great damage to that village and destroying two bridges. This dam, nearly a century old, was not replaced.

There had been early floods on the Connecticut and Housatonic Rivers, but on this same day these rivers began to rise again. On the following day the depth of the water in the Connecticut River exceeded that of the 1927 flood, and that night the river swept over the Colt dike in Hartford and inundated one-fifth of the city. It continued to rise until Saturday when its height far exceeded that of the 1854 flood which was the greatest ever recorded.[(P208)] Great damage was done throughout the Connecticut Valley from Holyoke to Middletown.

Acting under the authority of the U.S. Forest Service, I offered the services of the C.C.C. to Governor Cross for relief work Sunday, March 22, and in conformity with the wishes of the Governor’s Emergency Committee, organized the work under Superintendent Otto Schroeter who was an officer in the National Guard, He cooperated with the State Board of Health in

cleaning up after the flood subsided. By March 26 Superintendent Schroeter had a maximum of 1,636 men on flood relief work in 24 towns and communities. They cleaned out buildings which had been flooded and sprayed them with chloride of lime. It was a tremendous and very dirty job. Many carcasses of animals from cows to cats were buried. Altogether the C.C.C. furnished 26,047 man days of flood relief work in Connecticut, and cleaned 2,950 dwellings as well as 868 other structures such as schools, churches, barns, garages, etc. The men worked with excellent spirit under the direction of 130 superintendents and foremen. The work met with general acclaim and boosted still further the popularity of the organization. On April 29, Mayor Thomas Spellacy entertained at dinner in the Foot Guard Armory 1,200 of the boys who worked in the Hartford area. Speeches of praise were made by Governor Cross and Mayor Spellacy, and each boy was presented with a wrist watch as a token of appreciation for the work he had done.

Figure 45. H.A. Lunt, Raymond Kienholz, H.W. Hicock,W.O. Filley at Meshomasic State Forest in 1933(CAES archives)

Considerable research work was done with C.C.C. labor in the latter years of the program. Dr. Raymond Kienholz resigned as Camp Superintendent of Camp Robinson upon being appointed Specialist in Silviculture. He had charge of all research work of that kind. This included a comprehensive study of the diseases and defects in our forests.[(P209)] Over 1,250 tenth-acre plots scattered through 14,000 acres of state forest were examined. The results of the study were published in Bulletin 412 of the Connecticut Agricultural Experiment Station. It showed that some form of disease or defect was found on 19 per cent of the trees examined. Nectria cankers were found on 6 per cent of the trees. Birches were most susceptible to this disease and the oaks the least. Strumella cankers, decays, frost cracks, top damage, mechanical injuries and, fire scars were found and their abundance and location determined.

Another study was made on the effect of forests on frost penetration. Without giving the details of the findings, it was evident that the depths to which frost penetrates influences the time at which frost emerges from the soil in the spring and the capacity of the soil for water absorption and retention. Measurements made on state forests indicates the frost penetrates only half as deep under dense forest stands as it does in open areas of sod or plowed ground.

Blue Ribbon study plots, which had been established in 1931, were re-measured in the fall of 1935 after four growing seasons. The results showed that 8 mixed hardwood plots grew at the rate of 1.7 cords per acre per year after thinning although the average growth for the life of these plots was only one-half cord a year.

Plantations of red pine grew 3 cords per acre per year. Plots which had been thinned grew from 3 1/4 to 3 1/2 cords per acre per year while an un-thinned plot grew only 2 1/2 cords.

Meteorological instruments were supplied to the camps and considerable data were collected

to supplement that of the city weather stations. Measurements taken at 11 camps from May 1935 to June 1936 showed that average temperature in July varied only from 70° to 73° although a maximum of 95° was experienced at Camp White in Barkhamsted and Camp Hook in New Fairfield.(P210) Similarly, the average temperature in February varied only from 17° to 21° while the minimum temperature of minus 20° [F] occurred at Camp Roberts in Black Rock State Park. Average monthly precipitation the first six months of 1936 for six months varied from 2.96 inches in February to 8.38 inches in March but there was a wide variation between camps. For example the rainfall in March varied from 6.73 inches at Camp Roosevelt in the Cockaponset Forest, to 9.19 inches in the Natchaug Forest; and that of June from 3.17 inches in the Natchaug Forest to 9.94 inches at Camp Filley in the Cockaponset State Forest.

A study of damage to forest plantations showed that in some cases (Housatonic Forest) as much as 43 per cent of the trees planted were damaged while in the Peoples Forest the damage was only 3 per cent. Deer caused 78 per cent of the damage; ants, 8 per cent; squirrels, 5 per cent; mice, 4 per cent: mechanical causes, 3 per cent; and rabbits and birds each 1 per cent.

In the nature of research was the experiment in logging a very rocky lot in Meshomasic Forest using cable. This was carried out by Superintendent Blair quite successfully.

Mr. Shepard carried out experiments in handling cordwood in packages or bundles, but the equipment available was crude and the period before closing the camp too brief for definite results. The general conclusion was that it would be more economical to yard full length trees on the roadside and cut them up there. This is the same decision that has been made in England especially in pine plantations.

Since no funds were available for the maintenance of closed camps, the following were demolished soon after they were discontinued: Camps Graves, Roberts, Chapman, Hook, Fechner, and Stuart. Part of Camp Jenkins was retained as a central warehouse for the ten remaining camps.(P211) Camp Britton which was on the property of the Connecticut Agricultural Experiment Station was turned over to the Station. Portions of Camps Walcott and Roosevelt were retained because of their location on ponds. The latter was rented for a time to the Bureau of Teacher Preparation, New Haven State Teachers College. Camp Walcott was occupied for a season by a crew of the United States Geodetic Survey.

Mr. George Cromie who had had charge of the street trees in New Haven and had done a great deal of landscape work for Yale University, was appointed landscape specialist and given the job of beautifying the roads in the State forests. In addition to the planting of evergreens already mentioned, a considerable amount of work was done in encouraging native shrubs. Where there were promising groups of laurel, azalea, dogwood, blueberries, black alder or other attractive shrubs, these were given a better opportunity by removing inferior trees that were shading them. In some places, as much as a half-acre was devoted to flowering shrubs to relieve the monotony common on wood roads. Old stone walls were left wherever possible in road construction because of their picturesque appearance. Every effort was made by the camp superintendents to inculcate the idea of outdoor courtesy among the boys. The paper bags and waste papers, egg shells and fruit peelings which at first were scattered about lunch places were collected and burned. Tin cans and bottles were buried. It is hoped that some of these boys may have remembered this lesson.

In the preceding pages I have discussed the Civilian Conservation Corps from the standpoint of the work accomplished in the first five years.(P212) From the strictly financial standpoint, it is

safe to say that two or three times the amount of work could have been accomplished with the same amount of money by hiring experienced men. However, that was not the main objective. Through this organization a large amount of money was distributed among several thousand needy families to their great benefit and to the relief of the towns which were helping them.

The common attitude among the enrollees when the camps were first established was that the program was in the nature of an outing. For several months, a man could not be discharged unless he broke a camp rule or refused to work. Most of the men loafed on the job and many were absent without leave. These faults were rectified and men discharged if they were absent twice without leave, or if they were habitual loafers. At first, the towns sent some undesirable boys, but as the purpose of the camps came to be better understood a better grade of boys were sent. As an inducement to greater accomplishment, the Government established the grade of Leader at a salary of $45 per month and Assistant Leader at $36. In a camp of 200 men, there were 10 Leaders and 16 Assistant Leaders. To supplement this idea of encouraging good work, the State Forestry Department awarded certificates of merit to men especially recommended by the Camp Superintendents.

There is no question but that the majority of the men enjoyed the camp life and work, and that it was most beneficial to them in building them up physically and stimulating them mentally by giving them a new outlook on life. To many of them it was their first experience in the country and the first time they had come in contact with Nature. The improved health alone of this large group of young men was an important factor in the State's welfare. It undoubtedly reduced juvenile delinquency which has increased so much since the camps were closed.(P213) Some form of discipline seems to be essential for many young men of this age. The amount of lawlessness in connection with the camps was surprisingly low, and the camps were generally popular in their communities. There were a few unfortunate accidents which resulted in death or serious injury.

In the first summer, a series of talks on Forestry and allied subjects was given before the men by members of the staff. Later, classes were organized by foremen in various subjects such as Surveying, Forestry, Road Construction, etc. In the winter, weekly moving pictures were shown in the camps.

Later in the program, the Government provided a system of education and appointed educational advisers for the camps.

It is safe to say that no project of the New Deal met with such general approval as the C.C.C. During succeeding years, I have met many boys who were in the camps either in Connecticut or elsewhere, and they have all spoken of the experience with enthusiasm.

TRANSIENT CAMPS

The Civilian Conservation Corps was obviously for the benefit of young man and their families. As already mentioned, a small proportion of the enrollees were veterans of the First World War. In addition to these groups there were, of course, thousands of unemployed men. Among them was a large body of floaters - men who were constantly on the move looking aimlessly for work. For the benefit of this class the President's relief program included a national system of transient camps. The purpose was two-fold: to furnish relief and to reduce the movement of large numbers of men who are not residents of the State, with the accompanying

expense to municipalities for maintenance, and the crimes resulting there from. The welfare work of the State at this time was under Miss Eleanor Little, and the organization of these camps was her responsibility. To head up this work in the field, she selected Mr. Edward A. Currier, Jr., who resigned as Superintendent of Camp Fernow on April 1, 1934.(P214)

Application had been made to the State Forestry Department early in the winter of 1933-34 for permission to build two transient camps in the state forests. Permission was given with the approval of the State Park and Forest Commission, with the understanding that some of the labor of the transients would be available for the improvement of the forests, and that the camps would become the property of the Department when they were abandoned. Two camps were built by the State with Federal money and completed in May 1934 - one in the Nepaug State Forest, and one in the Nehantic State Forest. These camps were more permanent and more elaborate than the C.C.C. camps. Each had accommodations for 250 men, and was under a superintendent. Colonel Philip Hurley was in charge of the Nepaug camp, and Captain L.S. Tracy of the Nehantic camp. Unfortunately, there was no provision for supervision of the work except that furnished by selected transients. The transients received their board and lodgings and 90 cents a week for sending money. They were only required to work 24 hours a week. Under such conditions, no great amount of work could be expected. From 20 to 40 men were turned over to the Forestry Department and were employed under foremen employed by the Department, one on each forest. Later, two other camps were built by Mr. Currier but these were not on state forests. The Federal Emergency Relief Administration (F.E.R.A.) funds for operating the camps were withdrawn in November 1935, and the camps were turned over to the Works Progress Administration (W.P.A.) still under the direction of Mr. Currier. Several foremen were then employed at each camp at $85 per month from January 15 to June 15, 1936 and a large number of men were employed on forest projects. Wood was sold to the camps at a stumpage price of 30 cents a cord.(P215)

During the two-year period the Nepaug Camp improved 170 acres by removing dead trees, cleaning for planting 39 acres, thinning 20 acres, planting 35,000 tress and weeding 54 acres of plantations. In these operation 1,446 cords were removed, forest boundaries were cut out, 4 miles of fire lines were harrowed, and one mile of road was built.

At the Nehantic Camp a good entrance road was made to the camp and a main forest road a mile long was made south from the camp to a town road. Improvement cuttings were made on 300 acres; 31 acres were cut clear and planted to evergreens. In these operations 1,611 cords of wood, 6,400 board feet of logs and 450 fence posts were removed.

The camp in the Nepaug Forest was leased to the National Youth Administration on April 25, 1933, and the Nehantic Camp was leased to the City of Hartford Welfare Department on August 13, 1936 to be used by unemployed men.

CIVIL WORKS ADMINISTRATION (C.W.A.)

The “New Deal” as the Roosevelt Administration came to be called, was nothing if not prolific in devising new ways for the redistribution of wealth and increasing the National Debt as many people thought. Six months after the creation of the C.C.C., early in the winter of 1933-34, the Federal Government established an immense employment program known as the Civil Works Administration (C.W.A.). In Connecticut this work was administered by Miss Eleanor Little. The transient camps were really a part of this program but were confined to transients

whereas most of the money was spent in employing residents of the various states. Putting such a large number of men to work without previous plans naturally resulted in considerable waste and consequent criticism.(P216) It became a common joke to refer to these men as raking leaves from one side of the street to another.

Fortunately, the Forestry Department had plans for the improvement of the forests and was able to employ a large number of men on worthwhile projects. The work started on December 4, 1933 and ran until April 19, 1934. The greatest number of men employed in one week was 1,784, The total expenditure was $227,393. The Connecticut Forest and Park Association was having difficulty in financing its budget during the depression, and consequently we were able to have the services of its forester, Mr. Robert M. Boss, to administer this work. In spite of unfavorable weather conditions, Mr. Boss was able to get a large amount of work done. Supervisors and foremen were employed from C.W.A. funds. In towns having a population of 2,500 or less, employment was limited to 15 hours a week; in the larger towns, to 24 hours. All labor was paid 50 cents an hour. The total number of men employed on the forestry project was 2,053 so the average pay for the season per employee was $109.87, enough to be of considerable help to a family but by no means an exorbitant amount.

The work accomplished was of the same character as done by the C.C.C. but in different places. The accomplishment included 101 miles of fire lines made, 3 1/2 miles of road, 46 miles of foot trails, 500 acres of state forest prepared for planting, 231 acres thinned, 10 miles of forest boundary surveyed, 475 acres of state forest mapped for topography, 1,814 acres of plantations worked for Shoot Moth Control, and large number of currants and gooseberries removed to protect white pine from the Blister Rust disease. Products cut in the forestry operations included 19,000 fence posts, 4,500 cords of wood, and 77,200 board feet of logs.(P217) For the administration of the project several clerical assistants and draftsmen were employed. Under an art project sponsored by the Government, the services of Mr. Harry Leith-Ross were secured, and several paintings illustrating the State forests were made. The Connecticut trail system sponsored by the Connecticut Forest and Park Association was advanced by cutting and marking 42 miles of trail.

FEDERAL EMERGENCY RELIEF ADMINISTRATION (F.E.R.A.)

The following winter the F.E.R.A, succeeded the C.W.A. as an agency for providing employment. The main difference seemed to be that politics played a greater part in the administration whereas in the first year the C.W.A. had been entirely free from politics. Under this program again men were available for forestry work. In the Peoples Forest a large amount of work was done on the Greenwoods road in widening curves, paving ditches, sloping gravel banks, and cutting a vista to overlook the valley. In the Simsbury Forest a two-way road was made to the Massacoe pond, a foot-bridge was built across the dam, and an attractive pavilion put up. The pond was deepened, and bath houses built. In the Natchaug Forest, improvement cuttings were made on 22 acres, and 12 acres were clear cut for planting. In the Pachaug Forest, improvement cuttings were made on 12 acres, and 3 acres were prepared for planting. A survey crew located a 5-mile road to Green Falls Pond. Projects were prosecuted in cooperation with the Connecticut Agricultural Experiment Station for the control of Blister Rust, Pine Shoot Moth and Dutch Elm Disease.

The Federal Emergency Relief Administration was followed by the Works Progress

Administration (W.P.A.) which was directed in Washington by Mr. Harry Hopkins and in Connecticut by Mr. Robert A. Hurley, later Governor of the State.(P218) The influence of politicians and labor unions as the presidential election approached resulted in too high wages being paid for this kind of labor. Because of the high wages and easy work, many men preferred to remain on relief rather than seek regular employment. There was also a Public Works Administration (P.W.A.) which built school houses and other public buildings. While some work such as building the beautiful pavilion at Rocky Neck was done in the state parks under these administrations, they did not participate in forestry work during this period.

RESETTLEMENT ADMINISTRATION

Another creation of the New Deal was the Resettlement Administration. The underlying principle of this project was that there is a great deal of so-called sub-marginal land in the country where people are struggling against great odds to make a living by agriculture and that they could have a richer life either by farming better land or in some form of industry. It was also claimed that these sub-marginal farmers tend to increase the surplus production of crops of the nation although the products of such land are produced at a real loss by mining the soil without doing anything to maintain its productivity. The plan contemplated the purchase by the Federal Government of great areas of such land all over the country and devoting it to forest production, wild life, and recreation. There were, of course, tremendous difficulties in carrying out such a plan for there can be no absolute measure of what is sub-marginal land. Some acres acquired in Connecticut, for example, which were of no value for raising wheat or corn or for dairy products, were similar to lands which were being successfully used in the same towns for poultry production. One has only to visit old cellar holes in our forests, some of which once housed the best families of New England, to realize that economic conditions make the same land productive at one time and sub-marginal at another.(P219) It is closely related to the price of labor. Unfortunately, Mr. Rex Tugwell who was the father of the idea, was appointed by the President to administer it under the common delusion that any bright man, particularly if he is a good talker, can make an administrator, Up to that time, Connecticut State government had been fairly free from bureaucracy and it was astounding what a complicated organization could be set up to administer a relatively simple project. The project entailed examination of the land to determine whether it was sub-marginal, acquisition by the Government, and development with men under W.P.A. The project was established in Connecticut in the fall of 1934 by the Agricultural Adjustment Act of the United States Department of Agriculture in cooperation with the Forest and Wild Life Commission of Connecticut, and in July 1935 it was turned over to the Resettlement Administration. Mr. Philip Buttrick resigned as Superintendent of Camp Walcott to become the head of the Project Planning Unit, Region 1. It was called the New London County Stranded Population Rehabilitation Project (LD-CN-2).

Four areas were involved. The largest interlocked with the Pachaug State Forest in the towns of Voluntown, North Stonington and Sterling. About 9,000 acres were purchased in this region. Part of the land interlocked with the Salmon River State Forest; other areas surrounded Holbrook Pond in Hebron, and others were in the Quaddick Reservoir section of the town of Thompson. Development work was begun in December 1935, using several hundred relief laborers. Work was of a similar nature to that done by the C.C.C. on the state forests. From a recreational standpoint, the most important development was a picnic area on Hopeville Pond. The pond is large enough for canoeing.(P220) Altogether about 10,000 acres were acquired by the Government

which in turn leased the land for 99 years to the State of Connecticut. Under a 1937 statute, the State pays to the towns in which these lands are situated, a grant in lieu of taxes just as it does on state forest land. The lease covered 10,400 acres of which 9,252 acres were to be administered as state forests. This included 3,963 acres in Voluntown, 329 acres in Plainfield, 1,448 acres in North Stonington, 674 acres in Griswold, and about 1,735 acres in Sterling. These areas were administered as part of the Pachaug State Forest. 605 acres were added to the Salmon River State Forest including 106 acres in Marlborough, 204 in East Hampton and about 295 acres in Colchester. There were also 496 acres in the Town of Thompson.

NATIONAL RECOVERY ACT (N.R.A)

One of the earliest measures adopted by Congress after the inauguration of President Roosevelt, and one which was generally approved by industry was the National Recovery Act. This is not the place to describe the main purposes of this Act. Because of the inclusion at the President's request, of Article X to provide for the conservation and perpetuation of forests, it became of great interest to foresters throughout the country. This Act, providing for a Lumber Code, was approved by the President on August 19, 1933. In appointing the executive committee to represent the public, Secretary of Agriculture Henry Wallace, said, ''No more speculative exploitation." The committee appointed by him consisted of Earle H. Clapp, Assistant Forester in charge of research, U.S. Forest Service; Ward Shepard, Indian Service; W.G. Howard, State Forester of New York; O.M. Butler, Executive Secretary of the American Forestry Association; and B.P. Kirkland, United States Forest Service.

Together with foresters from the other New England states, New York, New Jersey and Pennsylvania, I attended a meeting in New York City called by the Northeastern Hardwood Subdivision to prepare rules of forest practice.[(P221)] These rules became effective June 1, 1934 However, they were never enforced as the Supreme Court declared the National Recovery Act unconstitutional. It was this decision regarding one of his pet measures which led the President to refer to the Supreme Court as "nine old men", a most unfortunate remark which led to much criticism of the President. Within the next few years through death and resignation, the President had an opportunity to make over the Supreme Court to his liking by appointing several mediocre men so that even after twenty years it has hardly regained the respect which it formerly had.

UNITED STATES FOREST SERVICE

Chief Forester Robert Y. Stuart died on October 23, 1933. He fell from his office window on the seventh floor of the Atlantic Building in Washington. Bob Stuart was born in Pennsylvania in 1883 and was a graduate of Dickinson College and the Yale School of Forestry class of 1906. He entered the Forest Service in July of that year serving in Missoula, Montana, as Assistant Chief of Operations until 1912, when he was transferred to Washington to serve under Col. Greeley as Forest Inspector in Silviculture. During the First World War, he served in the Forestry Regiment and was promoted to the rank of major. After the war when Gifford Pinchot became Commissioner of Forestry for Pennsylvania, he appointed Stuart as Deputy Commissioner. When Pinchot became Governor, he promoted Stuart to be Commissioner. At the end of Pinchot's term in 1927, Stuart was dismissed and rejoined the United States Forest Service as Assistant Forester in charge of Public Relations. When Greeley resigned in 1928, Stuart was appointed Chief Forester.[(P222)]

On November 15, Ferdinand A. Silcox became the fifth Chief Forester. Silcox was born in Georgia in 1882 and graduated from the Yale School of Forestry in 1905. After graduation, he worked in the United States Forest Service in Colorado and Montana and became Assistant District Forester. In 1911, he was promoted to District Forester with headquarters at Missoula. During the troubles with the I.W.W. [Industrial Workers of the World or the Wobblies], Silcox became interested in labor problems. During the war he served in the Forest Engineers and was promoted to Major. After a year's service he was selected by the Secretary of Labor and the Shipping Board to head a bureau to handle labor problems at the shipyards in Seattle. After the war he took a position in Chicago as Director of Industrial Relations for the Commercial Printing Industry, and later a similar position in New York.

Effective July 1, 1934, Mr. Silcox reorganized the work of the United States Forest Service for the northeastern part of the country. Mr. Robie M. Evans became Regional Forester in charge of Region 7 which includes Virginia and Kentucky and the twelve states north of these but not including Ohio. Mr. C.R. Tillotson was promoted to Assistant Regional Forester in charge of States Relations, and Mr. Crosby Hoar took over his inspection duties with headquarters at Amherst. Mr. Charles H. Tracy who had been Superintendent of our Camp Jenkins, was appointed to a position under Mr. Hoar in charge of Forest Practice and Fire Control.

Up to June 20, 1936, the U.S. Forest Service supervision of work projects of the C.C.C. camps had been from a branch office in Amherst, Massachusetts, but after that date supervision was directly from Washington. However, Mr. T.C. Flint, Chief Inspector for Rhode Island and Connecticut had his office in Springfield, Massachusetts.

REGIONAL AND STATE PLANNING

Governmental planning has never been popular in this country.[(P223)] Since Soviet Russia adopted Five-Year Plans particularly it has been frowned upon as rather socialistic to say the least. One of the creations of the New Deal was the National Resources Committee with Harold L. Ickes, Secretary of the Interior, as Chairman. Other members were the Secretaries of War, Agriculture, Commerce and Labor, and Harry L. Hopkins, Works Progress Administrator, and Messrs. Frederic A. Delano, Charles E, Merriam, Henry S. Dennison and Beardsley Ruml.

In order to carry out the purposes of this Committee, Regional Planning Commissions were set up. The New England Commission was headed by Mr. Victor M. Cutter, and composed of the Chairmen of the various State Planning Boards appointed by the Governors of the New England states, Dr. William L. State, Director of the Connecticut Agricultural Experiment Station, was appointed by Governor Cross as Chairman of the Connecticut State Planning Board. I received an appointment to this Board signed by Governor Cross. Mr. John MacDonald, Highway Commissioner, General Sanford Wadhams, Chairman of the State Water Commission, General Ladd of the National Guard, George H. Gray of New Haven, and others were on the Board. Mr. Perry Close served as engineer and draftsman. The Board met monthly in Hartford to consider such subjects as an air map of the state, a composite map, water gauging, disposal of refuse and household waste, water table and chemical analyzing of waters, places of scenic and historic interest, highway planning, etc.

At first meeting presided over by Governor Cross, each member suggested one or more projects which seemed suitable for consideration.[(P224)] I recommended having a Guide Book of Connecticut prepared. This idea was adopted and Mr. Edgar L. Heermance was entrusted with

the project. He was well qualified for such work and produced an excellent Guide Book which was published by the Emergency Relief Commission, in 1935. The work was paid for from funds made available by C.W.A. [Civil Works Administration] and F.E.R.A. [Federal Emergency Relief Administration]. The book was arranged for a series of fourteen journeys which visited all places of historical and scenic interest including state parks and forests. It was accompanied by the best map of the State that had been issued up to that time.

Whether as a result of this Connecticut Guide Book or not I do not know, but the Works Progress Administration adopted the idea and guide books were later published for nearly all if not all of the states. These State Planning Boards were in reality fact-finding boards as no real plans or recommendations were adopted, at least in Connecticut. Much valuable information about The State was brought together for the first time.

In July 1936 the National Resources Committee published "Regional Planning, Part III, New England" incorporating much of this information gathered by the various state boards. This bulletin included ten sections covering population, land resources, recreation, water resources, transportation, industry, publicity, planning agencies, acknowledgments and publications.

Section II which dealt with Land Resources, covered Agriculture and Forestry. In its discussion of Forestry, the report points out that of the total area of 40 million acres in New England, 27 million acres are woodland. Of 26 million acres of privately-owned woodland, 6,400,000 acres are listed as farm woodlands. "*Since it costs more to transport lumber to New England from distant sections of the country than it would cost to grow a comparable amount of good timber on idle land here, there is a great opportunity for increasing intensive development of forestry in New England.*[(P225)] *Favorable natural conditions, excellent transportation facilities, and ready markets afforded by nearby population centers, combine to make this region admirably suited to profitable timber production under scientific management.*"

"*There are now about 600 tracts in public ownership in New England and they include nearly 1,300,000 acres. About 900,000 acres of this is in Federal ownership and the remainder in State and Municipal ownership.*" "*It has been estimated that the productivity of New England forests could be quadrupled by wise forest management.*"

Section III on Recreation lists the State recreational areas in Connecticut as follows:

State Forests	65,557 acres
State Parks	11,593 acres
Game Sanctuaries	6,500 acres
Total	83,650 acres

Part II. State and Private Forestry

PARK AND FOREST COMMISSION

(P226)At the beginning of this period, Mr. Lucius Robinson was still Chairman of the Commission, and the other members were: Herman H. Chapman, Edward H. Wilkins, Harris Whittemore, Jr., John E. Calhoun, Arthur L. Peale and Walter L. Filley. Mr. Calhoun who had been with the Commission since its inception in 1913, and had always taken a keen interest in the activities, resigned in January 1935. Governor Cross appointed Mr. Dwight C. Wheeler of Bridgeport to take his place. At the expiration of Mr. Whittemore's term in September 1937, Governor Cross appointed Mr. Thomas Hewes in his stead. The young Mr. Whittemore had never taken as keen an interest in the work of the Commission as his father, as his main interest was in aviation. Mr. Hewes had been a Director of the Forest and Park Association, and seemed to be quite interested in Forestry, although it was noticeable that he was always impatient to have the meetings over and did not seem to enjoy the field trips as the other members did. While Mr. Lucius Robinson remained on the Commission, he insisted that someone else should take his place as chairman, and Professor H.H. Chapman was accordingly elected Chairman.

PERSONNEL OF THE FORESTRY DEPARTMENT

Because of the higher salaries paid by the Federal Government, Ranger Richard Perry and some of the other men were transferred to the C.C.C. payroll. Headquarters of the Eastern District was moved from Willimantic to the Nye-Holman State Forest where the renovated house provided ample space for living quarters and office.

Under the newly created Personnel Office of the State Government establishing a so-called Merit System, Mr. William C. Shepard who had been assisting in the C.C.C. work, was appointed as Forest Products Technician in the biennium 1936-37.(P227) He would, of course, have been appointed under the former system. Experience shows that the only advantage of a Merit System is that it protects the head of a department from political pressure.

Figure 46. (Connecticut State Library collection)

PUBLIC RELATIONS

On June 3, 1933, soon after the establishment of the C.C.C. camps, the Connecticut Forest and Park Association held its spring meeting at Camp Roosevelt in the Cockaponset State Forest, This proved to be the last meeting presided over by President T.S. Woolsey. Dean Henry S. Graves was the main speaker.

On October 7, 1933, this Association held its fall meeting in the Peoples Forest. President Goodwin Beach presided at the meeting which was held in the Matthies picnic area. There were talks by Superintendents Kienholz and Buttrick, and Mr. Russell Lund.

On June 2, 1934, the Association met in the Paugnut State Forest in the beautiful White

birch grove on Burr Pond. The speakers included Senator Walcott, Mr. James Taylor, Assistant Administrator of the C.C.C., and Secretary Edgar Heermance.

As already mentioned, the dedication of Fernow Bridge in the Natchaug State Forest on June 4, 1934, was well attended.

On August 23, 1934 the State Board of Finance and Control inspected the work of the C.C.C. in the Peoples, American Legion and Tunxis State Forests. Mr. R.M. Evans, Regional Forester of the U.S. Forest Service, was also present.

On May 3, 1935, exercises were held dedicating the Nature Museum in the Peoples Forest built by the C.C.C. Governor Wilbur Cross, Hon. Robert Fechner, Director of the Emergency Conservation Work, and Col. William H. Wilson were the chief speakers. Much praise was given to the boys of Camp White for the excellence of their work, and to Messrs. Robert Linehard, architect for the building, August Casciani, chief mason, and Robert Loughlin, chief carpenter.(P228)

On May 18, 1935, a trail in the American Legion State Forest was dedicated to the memory of the late Henry Buck, as previously mentioned.

Also, as mentioned previously, the Connecticut Forest and Park Association dedicated Toumey Road in the Mohawk State Forest on June 15, 1935.

On September 2, 1935, the New England section of the Society of American Foresters met in Connecticut. The group consisting of eighty foresters camped in tents in the Peoples Forest and inspected forestry operations in the Peoples, American Legion, Tunxis and Paugnut State Forests.

On June 1, 1936, the National Conference on State Parks held its annual meeting in Connecticut. On its field inspection trips, it passed through the Cockaponset State Forest.

On October 3, 1936, a beautiful fall day, the Connecticut Forest and Park Association again visited the Cockaponset State Forest, drove over the roads that had been built by the C.C.C. and held its meeting at Chatfield Hollow.

June 4, 1938, this Association held its spring meeting on Mt. Parnassus in East Haddam. The purpose of the meeting which had been arranged by Mr. Lathrop was to dedicate a tablet to the memory of the late Captain George Comer who gave land here to the State for a lookout tower. The inscription on the tablet reads: "*To the memory of Captain George Comer, able seaman, Arctic mariner, navigator of the seven seas, 1858-1937.*" Several prominent speakers paid tribute to Captain Comer including Governor Cross, Senator Walcott, and Robert Cushman Murphy of the American Museum of Natural History.(P229) The famous Moodus Fife and Drum Corps furnished music.

On June 21, 1938, a beautiful summer day, the Federation of Women's Clubs held a meeting in the Peoples Forest to dedicate as Constitutional Grove an area of 50 acres recently donated to the State by the Federation. Speakers included Mrs. Laura H. Gorton, President of the Federation, and Miss Florence L. Sutton, Past President, who was mainly responsible for the gift.

In June 1934 another bulletin was issued on The State Forests of Connecticut. The main purpose was to show the part being played by the C.C.C. in the development of the state forests.

Also published about this time was an attractive circular prepared by Mr. Lathrop entitled

"By the Way to Connecticut Forest Fire Lookout Towers."

In the winter of 1933-34, Mrs. Otis G. Bunnell, Special Lecturer of the Department, visited 126 schools in various parts of the State and addressed approximately 28,000 pupils. The following winter this work was done by Mrs. Robert M. Ross who had been a school teacher. She visited 126 schools and addressed about 23,000 pupils. Also, Supervisor of Wardens, E.M.C. Eddy, gave a great many illustrated talks. We had purchased a moving picture camera and taken pictures of our forest operations.

In the spring of 1935, a series of broadcasts on the work of the C.C.C. was given over WTIC [AM radio] by members of the Department.

ACQUISITION AND ADMINISTRATION OF STATE FORESTS

On June 30, 1932, the area of state forest was 63,346 acres. Very little money was available during this period for the purchase of state forests and consequently the area as of June 30, 1938 had only increased to 69,985 acres.(P230) This area would have been 70,031 acres but 46 acres were transferred to the State Highway Department. Of the land acquired during the period, 543 acres was purchased at $3,487, an average of $6.43 an acre, from money received for the sale of forest products from the state forests. An almost equal area, 540 acres, was acquired by the State Board of Fisheries and Game for fishing purposes thus creating the Salmon River State Forest, bringing the total number of state forests up to twenty. Several gifts of land were received and 50 acres, including Camp Concord, were added to the American Legion State Forest by condemnation under a special act of 1933.

When several tracts in the Peoples Forest were acquired by the Connecticut Forest and Park Association, two tracts with buildings known as the King and Chatfield places were reserved with the idea that they might be sold for summer places and the money used to buy additional land. This did not prove feasible, so in May 1936 the Association deeded these areas to the State. The combined area was 21 acres. The King house was repaired by the C.C.C., and the Chatfield house was demolished as of no value.

The General Assembly of 1933 authorized the acquisition of land through the exchange of wood and timber. One tract of 124 acres in the Pachaug Forest was acquired in this way. It is very unfortunate that during the depression years when land could have been bought cheap, there were no appropriations for this purpose. The much higher prices paid for subsequent purchases are sufficient commentary on this short-sighted policy of the Appropriations Committee of the General Assembly. Mr. Heermance's acceptance of Governor Cross' economy program was partially responsible.

An interesting item in connection with the survey of the state forests already mentioned, was that the deed acreage of 679 separate lots so compensated for each other the total surveyed area was within 1/20 of one per cent of the areas given in the deeds.(P231) This speaks well for the honesty of the many people who had sold land to the State over the years, and it also is evidence of the accuracy of the survey under Mr. Schreeder's supervision.

So much has already been said about the development of the state forests by the C.C.C. and other relief labor it is unnecessary to add anything further.

FIRE PREVENTION AND CONTROL

The small number of fires in 1933 - only 661 - was due in part to the amount of rainfall prior to April 17, but also to increased care which people were taking as a result of the combined effort of lookout observers and patrolmen. Total area burned was 3,175 acres. Only one fire burned more than 50 acres; and the average area per fire was 4.8 acres. Of 20 burns surveyed in this year, the total area was 494 acres as compared with a reported area of 910 acres, illustrating the tendency of wardens to exaggerate areas.

In 1934 there were 757 fires, and the total area burned was exceptionally low - only 3,517 acres, There were four fires between 50 and 70 acres apiece. All the others were under 50 acres, and the average area per fire acres was 4.65 acres, slightly loss less than in the previous year.

After these two unusually good years, it was naturally disappointing to have the number of fires in 1935 go up to 1,500. This was due in part to a very dry fall. The situation became so serious that Governor Cross closed the woods by proclamation on October 29, pointing out that there had been less than one inch of rain since September 9. This proclamation remained in force only four days when rain changed the situation.(P232) There wars 234 fires in October alone. The worst fire since 1930 occurred in Ledyard on April 28, 1935 and burned 526 acres. In spite of this and four other fires which burned 100 acres or more piece, the total area burned in the year was held down to 7,321 acres and the average area per fire was 5 acres. Connecticut maintained its lead of all states in the smallness of its fires.

For these two years we have rather complete reports of the work of the 19 lookout towers. In 1934 the observers served 921 days and located 1,331 fires. This, of course, means that some fires were located by two or more observers. In 1935, observers were on duty 1,434 days because of the bad fall season. They located 2,892 fires. Over 11,000 people visited the towers while observers were on duty. The series of broadcasts of fire hazard given over WTIC was most helpful.

In 1936, the number of fires was down to 896, and no fires exceeded 100 acres. The average area per fire was only 3.7 acres.

Again, in 1937 the number of fires was up to 1,508 but only three exceeded 100 acres and the average area per fire was 4.8 acres. In fact, no fires during this two-year period got out of control. Patrolmen and wardens made 27 arrests during this period. Of 10 cases tried before judges, there were 7 fines and 2 remitted. Of 17 cases tried before justices of the peace, there were 9 fines and 5 remitted. One man was committed to a hospital for the insane. Of 5,322 fires which burned between 1933 and 1937, the average area per fire was 4.62 acres.

Seven Protective Associations were functioning as this time with an average of 509 members owning 80,850 acres. During the period 1932 to 1935 inclusive, the patrolmen of these associations patrolled an average of 38,000 miles a year, issued 107 warnings, discovered 88 fires, and extinguished 22 fires themselves.(P233) The average area of Association land burned was 32.5 acres a year which is 0.04 of 1 per cent, certainly a good insurable risk. The value of these associations extended over a much larger area than that owned by the members, as many of the holdings were scattered and much intermediate land was equally well protected.

By 1937 there were 17 lookout towers in operation. Towers previously operated on Yale School land in Union and by the New London Fire Department, had been discontinued. The

Mohawk wooden tower had been replaced by a steel tower in 1937, and a new steel tower had been built by the C.C.C. in Hartland in 1933. Other new steel towers included East Haddam, Pomfret and Roxbury built in 1934 and Redding built in 1936. Most of these towers ranged from 62 to 75 feet in height.

By 1934 there were gasoline power pumps stationed at Cheshire, Hartford, Lebanon, Middletown, Southbury, Torrington, and Willington.

As already mentioned, the C.C.C. did much valuable work in constructing fire lines, water holes and serving as trained crews at fires.

FOREST TAXATION

By this time it was evident that the forest tax law of 1929 was not accomplishing what its sponsors had hoped of it. Since its passage, no further applications had been received under the law of 1913. Thirty-four certificates had been issued under this old law covering 4,565 acres.

In the spring of 1938, the Department published a circular entitled "Forests in Connecticut Safeguarded from Excessive Taxation and Other Hazards." The main purpose of the publication was to call the attention of forest owners to Sections 1188 and 1191 of the General Statues. This law allows the towns to increase real estate values on classified lands from time to time, but exempts from taxation all tree growth thereon.[(P234)] Since the general revaluations of real estate in most towns would occur before February 1, 1940, it was pointed out that early classification was desirable. Since the passage of this law, 58 certificates had been issued covering 6,300 acres. It is apparent that special classification of forest land will never become popular. Any law to be successful must apply to all bona fide forests.

CONNECTICUT FOREST AND PARK ASSOCIATION

Mr., Theodore S. Woolsey, Jr., President of the Association, died suddenly in July 1933. He had been active in building up the membership. He was followed by Mr. Goodwin B. Beach who served as President from 1934 to 1938. Robert M. Ross resigned as Forester for the Association in 1935. He had been very helpful to the Sleeping Giant Association in acquiring Mt. Carmel as a State Park, and in supervising the work of relief employees in the state forests as already mentioned. In January 1936, he was succeeded as Secretary by Mr. Edgar Heermance who had been chairman of the Trails Committee. Considerable emphasis during this period was placed upon trail building, and in October 1935 the Association printed a circular entitled "The Connecticut Trail System, The Metacomet Trail."

In October 1937, the Association printed the "Connecticut Walk Book" which sold for 50 cents. This proved so popular [that] subsequent editions were printed.

Mr. Ross had felt the need of some sort of publication for distribution among the members of the Association. In February 1936, Mr. Heermance published the first number of "Connecticut Woodlands." This little magazine, at first printed but three times a year, proved a great success.[(P235)] It was neatly gotten up, printed on good paper with interesting short articles and good illustrations. Since the discontinuance of the '"Wooden Nutmeg" by the Administrative Director of the Commission and the discontinuance of State Reports by the State Finance Commission, it has been the only record of forestry events in the state.

The first article in this magazine was by Professor Ralph C. Bryant of the Yale School of Forestry on "The Improved Wood-burning Stove." The gist of his article was the need of markets for low-grade wood material to stimulate the practice of forestry. One method would be to increase the use of wood as a fuel. Toward this end, Professor Bryant described the invention of a new type of wood-burning stove which makes it possible to secure heat values from wood more than twice as great as can be secured from the usual type of stove, Whereas the ordinary wood stove produces heat value of from 35 to 45 per cent of the potential value of the wood burned, this new type of stove used abroad will yield from 75 to 90 per cent of the potential fuel value. By the use of such a stove, the amount of wood required by a household through the winter could be cut in half. The argument for the stove from the forester's standpoint was, of course, that reduced cost of wood fuel would greatly stimulate the use of wood particularly in rural districts where more and more people had been resorting to substitutes.

This new type of stove which had gained such headway in Europe, particularly in Sweden, Germany, France, and Switzerland, is adapted for heating, cooking and water heating. The principle of this stove in brief is that of destructive wood distillation. The wood is first converted into a gas, and this gas is mixed with an air current of high temperature where the gas and tar products are burned. These stoves are built chiefly of steel plate.

Stimulated by this new idea, Mr. Heermance organized a Marketing Committee of the Association to study all possible uses of low grade wood material.[(P236)] Mr. William Shepard was Chairman of the Committee. Largely through the efforts of this Committee, a stove manufacturer of Westfield, Massachusetts, was induced to put a stove of this kind upon the market. It was called the "Char Wood Heater." Several of these stoves were distributed about the state and performed quite satisfactorily. Perhaps the main reason that it was not a financial success was that it was not a thing of beauty, and with modern kitchens women demand beautiful enameled stoves. Probably someday such a stove will reappear in a more attractive form. In connection with this project, the Association issued a circular in December 1936 on "How to Burn Wood" in which one of these German stoves was pictured and described. Reference was also made to "Wood Gas for Trucks" of which more later. A list of common Connecticut woods with values in B.T.U.'s was included.

The Association took an active part in the campaign to control billboards in rural areas. The definition of "rural areas" as used in the bill introduced in the Assembly by Mrs. Kitchel of Greenwich, was worked out by a committee of the Association with the help of the National Roadside Council.

One of the main activities of the Association in this period was an attempt to save the Shaker Pines. This was an area sown broadcast with pine seed by the Shaker Colony of Enfield in 1871. The result was a pure forest of pine (white, with a sprinkling of red 66-years-old in 1937). The tract had been well cared for but was owned by the Bridge family of Hazardville and was in receivership. Part of it had already been sold and cut clear. A survey showed the average stand to be 21,393 board feet per acre, and the best of it ran 27,220 board feet per acre.[(P237)] The annual growth was estimated at 1,300 board feet per acre per year. The part remaining was about 75 acres with a volume of 1,500,000 board feet and an annual growth of over 100,000 board feet. In addition to the timber, there were 100 acres of hardwoods and small burned-over tracts. The entire property consisted of 290 acres. Careful consideration was given to fire hazards and other factors from an investment standpoint. Unfortunately, the possibility of a hurricane did not occur to anyone--a tale to be told later. The purchase price of the tract including a quarter mile of shore

front on an attractive pond was $14,000. Under the auspices of the Association, a corporation was forced which bought the tract primarily to save the pine. It was called “The Shaker Pines Forestry Corporation.” The board of directors consisted of Goodwin B. Beach, President; Mrs. Waldo S. Kellogg, Vice-President; Edgar L. Heermance, Secretary; James L. Goodwin, Treasurer and Manager; and George A, Cromie.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION

The Experiment Station through Mr. Hicock continued the experiments begun in 1928 in treating native woods with creosote by the open tank method. Most of this work was done in cooperation with the State Forester and the State Highway Department. As a result, the Highway Department adopted a policy in 1933 of using native posts treated by methods developed from these experiments. Mr. Hicock estimated the annual need for posts and small poles in Connecticut as follows:

Use	Quantity	Diameter	Length
1. Highway fencing	100,000	6-8 inches	8 feet
2. Tobacco shade tent poles	25,000	4-6 inches	12 1/2 feet
3. Farm and estate fencing	300,000	3-6 inches	7-8 feet

As a result of the above policy of the Highway Department, the State Forestry Department using C.C.C. labor, built a creosoting plant for hardwood fence posts in the Meshomasic Forest.[(P238)] This plant, designed by Mr. Shepard, consisted of two wooden tanks 3x3x18 feet inside, placed in line end to end. The “hot” tank into which the costs are put first, is lined with thin steel electrically welded at the corners to prevent leakage. At the end of the second tank was a drain platform 4x20 feet. Over the whole, there was an I-beam track on which ran a trolley that carried chain hoists for handling the cages. The creosote was heated by steam coils in the bottom of the tanks, the steam being supplied from a wood-burning l5-horsepower boiler. Each tank held 6 cages, and when both were in operation had a capacity of 120-150 posts per 8-hour day. Approximately 1,200 gallons of creosote were required to fill each tank to the proper level. The prescribed treatment required immersing 4 feet of the butts of the posts in creosote heated to 220° in the “hot” tank for approximately 4 hours, and then transferring to creosote at 100° in the cold or second tank for a like period. The creosote used was specification No. 1 American Wood Preservers Association, the best grade for the commercial treatment of wood products. Penetration in oak posts was sometimes as much as one inch. A storage yard was made near the plant with a capacity of 10,000 posts. This plant was completed in July 1934 and the total cost for materials not taken from the forest was $1,670. During the period of operation by the State, 47,700 posts were received, 36,500 were treated, and 27,000 at 65 cents apiece were sold. In addition, 34,000 board feet of bridge planking cut in the forests was treated. While this work was done by the State Forestry Department, it was done in cooperation with Mr. Hicock. In 1938, the State Highway Department changed its policy and purchased only posts that had been pressure-treated with creosote. This was unfortunate for Connecticut forest owners as it excluded native woods.[(P239)]

In 1938, the Experiment Station published Circular 123 prepared by Henry Hicock entitled “The Uses of Water Soluble Preservatives in Preventing Decay in Fence Posts and Similar Materials.” In the same year, Bulletin 413 “Red Pine in Connecticut Forest Plantations, Part I, Volume Tables for Bed Pine” by Hicock and Kienholz, was published by the Station.

Mr. Hicock reported the distribution of nursery stock by the Experiment Station during this period as follows:

Year	Seedlings
1933	970,515
1934	734,630
1935	200,900
1936	229,575
1937	356,800
1938	510,750

As stated la the previous chapter, there was a marked drop in, the demand for trees after the depression of 1929 with the result that many trees had to be destroyed. For some time after that it was impossible for Mr. Filley, who had charge of the nursery, to plan for the future.

EXTENSION FORESTER

On March 1, 1936, Mr. Floyd Callward began his duties as Extension Forester for the Agricultural College on a full-time basis, succeeding Mr. J.A. Gibbs who had done some teaching on the campus. Mr. Callward is a graduate of the New York College of Forestry, 1924. His first professional service was as State Leader of White Pine Blister Rust control in Vermont. In 1925 he became Vermont's first Extension Forester. In 1929 he was made Professor of Forestry and head of the department at St. Lawrence University in Canton, New York, and also did extension work throughout northern New York.(P240) His appointment to Connecticut was a happy selection from the standpoint of the State Forestry Department for we always had efficient cooperation and helpful assistance from him. Regrettably, such cordial relations have not always existed in some states between the State Forester and Extension Forester.

Authority was received from the U.S. Forest Service to establish demonstration plots on private forests with the C.C.C. This work was done in cooperation with Mr. Callward. Most of the plots selected were of one acre and were located on public roads where they could be seen. During the winter of 1936-37, eighty such plots were established and treated, and signs were set up calling the attention of the public to the fact that these plots had been improved. An average of 7 cords per acre was removed, leaving 14 cords. Thus, one-third of the stand was removed. Additional plots both for thinning and planting, were made later so that the total was 195 plots in 68 towns. Mr. Callward later held group meetings of farmers on some of the better plots. One difficulty with the idea was that most forests on highways were in such poor condition the treatment made no perceptible improvement at the time although long time benefit would result. Unfortunately, between the hurricane of September 1933 and the building boom along our highways, only a few plots have survived. A mistake was made in placing the signs parallel to the road instead of perpendicular to it so that they could more easily have been read by people in cars. This was brought out later in a report by Mr. Cope, Extension Forester of New York.

About the time the Supreme Court declared the National Recovery Act unconstitutional, it rendered a similar decision about the Agricultural Adjustment Act. Thereafter, Congress passed the Soil Conservation and Domestic Allotment Act.(P241) The underlying principle of this Act was to encourage farmers by government subsidies to substitute soil conserving for soil depleting crops, thus supplementing the work of the newly created Soil Conservation Service.

Under this law, the Agricultural Conservation Program for Connecticut allowed subsidies for two types of forest practice.

> Practice A.7 - For the initial establishment of a stand of trees or shrubs on farmland for erosion control, watershed protection, or forestry purposes. Plantings must be protected from fire and grazing. The following varieties of trees are recommended for planting: pines, spruce, fir, hemlock, larch, locust and cedar. Other species may be recommended by the technician. Shrubs should be those that benefit wild life.
>
> Federal coat-share
> (1) $25 per acre for trees and planting;
> (2) $5 per acre where clearing is necessary;
> (3) 50 cents per rod for necessary fencing.
>
> Practice B.3 - Initial improvement of a stand of forest trees for erosion control, watershed protection, or forestry purposes. Federal cost-sharing may be allowed only for (1) thinning, (2) pruning crop trees, (3) release of desirable tree seedlings by removing or killing competing and undesirable vegetation, and (4) fencing. The minimum number of desirable species and form left will vary with the age, composition and condition of the original stand, but at least 100 such trees having an average diameter of not less than 2 inches must be left per acre.
> Federal cost-share:
> (1) 70 per cent of the average cost for thinning and wedding, but not in excess of $16. per acre;
> (2) 70 per cent of the average cost for pruning, but not in excess of (a) $8.00 per acre for removing all branches to a height of 9 feet; (b) $12 per acre for removing all branches to a height of 13 feet; and (c) $16 per acre for removing all branches to a height of 17 feet[(P242)].
> (3) 50 cents per rod for necessary fencing.

These subsidies began in 1936 and have continued. As Mr. Callward writes:

> "It's hard to say how permanent the results of these payments are. On some farms I am sure they helped to get some improvement work done and possibly some planting work as well that would not have been accomplished without them. It's also possible although, of course, it's hard to tell, that some people have been converted to good practices as a result of seeing how good their lots look when cut on a thinning or improvement basis rather than clear cut."

YALE SCHOOL OF FORESTRY

Mr. Nathan Canterbury in 1937 resigned from his position as Director of the Yale Forest of 7,700 acres in Tolland and Windham Counties. For some years thereafter, it was managed by Assistant Professor Robert T. Clapp, Director of all Yale forests, which include tracts in Vermont and New Hampshire.

The Forest School at this period occupied Sage Hall on Prospect Street and Bowers Hall in the rear, which had been completed in 1931. Henry S. Graves was still Dean of the School.

CONNECTICUT ARBORETUM

For several years I served on the Board of Directors of the Arboretum at Connecticut College in New London and enjoyed very pleasant relations with President Blount and members of the faculty. This area of 70 acres was devoted entirely to plants and shrubs native to Connecticut.(P243) By 1936 the trees and shrubs of the arboretum were of 24 families, 45 genera, and 79 species. An outstanding feature is the grove of virgin hemlock covering about 12 acres. This is part of Bolles Wood which was deeded to Thomas Bolles by the Mohegan Sachem Oweneco in 1693, and given to the College by Anna Hempstead Branch, a direct descendant of Thomas Bolles.

The grassy steps descending to the outdoor theatre flanked by large laurel bushes make this one of the most beautiful spots in the State when the laurel are in bloom.

4-H FORESTRY CLUBS

After the First World War, 4-H clubs began to be organized for boys and girls throughout the country. The symbol stands for education in Head, Heart, Hand and Health. In 1928, James R. Case, club agent for Fairfield County, introduced into Connecticut the idea of forestry clubs for older boys. By 1936, there were already 20 members in Fairfield and New Haven counties, and later the idea spread to the rest of the State. Each member lays out a plot in a woodlot where an improvement cutting is badly needed. The boy selects the trees himself and keeps a careful record of the work done. Some boys plant trees where there is an opportunity. For several years the Forest and Park Association offered prizes for the best woodlot improvement. In addition to three money prizes, the State Forestry Department gave fourth and fifth prizes in the form of planting stock. The granting of these prizes became a regular feature of the annual meetings of the Forest and Park Association. Movements like this are indication that the next generation of Connecticut citizens will have more interest in forestry than past generations have had.

PRIVATE FORESTRY

As already pointed out, there were several ways in which private owners were assisted in improving their woodlots during this period, but it cannot be said that any great progress was made in this direction.(P244) Land owners already mentioned continued the work they had started.

In the eastern part of the State, the tract owned by Mr. James L. Goodwin began to attract more attention. In 1938 he had a valuation survey made of this entire tract. This showed 800 acres covered with merchantable wood amounting to 6,890 cords of hardwoods, and 654 cords of dead chestnut. Growth studies indicated that the average annual increment was one-fifth of a cord per acre or about 160 cords for the entire tract. The forest was then divided into averaging about 40 acres each, and these in turn in sub-compartments according to age classes. By 1936 the area had been enlarged to 1,150 acres. The following amounts of wood were cut:

1933 - 293 cords of wood and 34 cords of logs
1934 - 395 cords of wood and 30 cords of logs
1935 - 277 cords of wood and 30 cords of logs
1936 - 352 cords of wood and 86 cords of logs
1937 - 294 cords of wood and 100 cedar rails.

At this time, cutting and skidding cost $2.88 a cord, and the average price received was $4.95 a cord at the roadside. Cedar rails were sold at 33 cents apiece.

In December 1937 there were cut 533 Christmas trees at an expense of $112. They were sold for $189.

The Great Mountain Forest of Norfolk and adjoining towns, already mentioned in the previous chapter, was turned over for management in 1935 to Edward C. Childs, the son of one the owners, and a graduate of the Yale School of Forestry.(P245) However, he was away from Norfolk most of the time for several years with the Army, and therefore not much work was done during this period.

Mr. Shepardson continued to thin and prune the extensive plantations of the Whittemore family in Middlebury, and the Alain White Forest in Litchfield was developing both as a forest and wild life sanctuary.

NATIONAL ASSOCIATION OF STATE FORESTERS

This Association held its annual meetings as follows: 1933 in Indiana where we saw the finest virgin hardwoods that I have ever seen; 1934 in Tennessee where we visited some of the dams of the Tennessee Valley Authority; 1935 in Vermont where we saw some of the excellent recreational developments made by State Forester Merrill with C.C.C. labor; 1936 in Wisconsin which I did not attend; 1937 in Texas.

CHESTNUT BREEDING WORK

Mention should be made here of the important breeding work in Chestnut initiated by Dr. Arthur H. Graves, Curator of the Brooklyn Botanical Gardens on his property in Hamden, Connecticut. This project consisted of the interbreeding of various species of chestnut with the object of replacing, if possible, with new stock our valuable native chestnut. Previous to 1934, specimens of the blight-resistant Japanese chestnut were cross-pollinated with the American chestnut in the hope that a resistant hybrid could be obtained with the desirable characteristics of our native chestnut. In that year, three of these hybrids bloomed although only in their third year. Ordinarily the American chestnut did not bloom until 10 or 15 years old.(P246) Early blooming is a characteristic of hybrids. Nuts were produced from one of these hybrids. From the standpoint of blight resistance, the Chinese chestnut proved the finest stock, and after 5 years had an average of 8 feet. It does not develop a good form for timber.

REVIEW OF FORESTRY SITUATION

By the first of July 1938, the forests of Connecticut were in the best condition they had been in for thirty years, since they were first attacked by the chestnut blight. Over the years, hardwoods had gradually taken the place of the dead chestnut, and although the trees were slower growing there were many promising young stands. Forest fires had been brought under control so that the average area per fire was only 4.62 acres and there had been no thousand-acre fires for 8 years. The great burned areas which had been such a prominent feature of the State landscape during this 30 years were now reclothed with young trees, and pine and hemlock were beginning to creep back into the protected stands. Clear cutting was almost a thing of the past,

and the average age of Connecticut woodland was at least 20 years more than it had been in 1915 when the chestnut was practically all dead. There were now considerable areas of well-established state forest, large areas of private and corporate forest plantations, and several owners who were making an effort at systematic forestry. Through the work of the C.C.C. and other relief labor the condition of the state forests had been greatly improved so that now for the first time they were serving as demonstrations of forestry practice, which was the original purpose for which they were created. Through the publicity attached to the C.C.C., the people generally had become well-disposed to forestry.(P247) All in all, the outlook for Connecticut forests was the brightest it had been since Professor Brewer first began to talk about forestry.

Figure 47. Supervisory personnel of Connecticut's CCC camps 1933-1940. (Connecticut State Library collection)

CHAPTER X. NATURE TAKES A HAND - JULY 1, 1938 TO JULY 1, 1942

(P248)On the afternoon of September 21, 1938, Connecticut and most of New England was struck by a terrific tropical hurricane. There had been nothing like it since 1815. If meager records can be relied upon, the infant colony in 1635 suffered a similar catastrophe. This was an average of one in a century, but the hurricane of 1938 apparently issued in a new era. New England has experienced several hurricanes in the succeeding seventeen years, and Connecticut has had two bad hurricanes with considerable wind damage, though neither were equal to that of 1938, and another one in August 1955 which produced a disastrous flood.

This 1938 hurricane on September 16 was located about 500 miles northeast of the Leeward Islands, moving in a westerly direction at the rate of 15 to 20 miles an hour. By the morning of September 21 it had swung northerly past Cape Hatteras and had increased its speed of progress to 60 miles an hour when it struck Long Island and Connecticut. The center of the storm struck just west of New Haven at 3:50 p.m. and was just west of Hartford at 4:17 p.m. From there it crossed Massachusetts and swept up through Vermont, passing Northfield at 7:30 p.m. It then passed into Canada where it did little damage. The rotational movement resulted in much stronger winds east of the central path of the hurricane than on the western side, with the result that eastern Connecticut and Rhode Island suffered much more than western Connecticut. Maximum wind velocities for five-minute intervals were recorded as 82 miles per hour from the southeast at Block Island; 87 miles from the southwest at Providence; 73 miles from the south at Boston; and 46 miles per hour from the northeast at Hartford.(P249) These figures, however, give no idea of the impact of individual gusts of wind which reached 87 miles at New Haven. The Blue Hills Observatory at Milton, Massachusetts, recorded a sustained wind at the rate of 121 miles for five minutes, and gusts of 173 and 183 miles per hour. The greatest wind ever recorded in New England was on the summit of Mt. Washington - 231 miles an hour on April 12, 1934.

Figure 48. The 1938 hurricane caused extensive damage in the forests (CAES archives).

The rainfall, which preceded and accompanied the hurricane, was excessive and was an important factor in the forest devastation. Between September 17 and 22, most of Connecticut suffered a rainfall varying from 9 to 14 Inches, and the central portion of the state up to 17 inches. The ground was so thoroughly soaked it could not absorb all the water. All important streams experienced flood conditions, and the soaked condition of the soil was an important factor in the terrific windfalls. Another cause of the destructiveness of this storm was the fact that it came at a time when the tree crowns were still full of leaves and, therefore presented a sail surface to the winds which would not have happened if the hardwoods had shed their leaves.

Most of the damage was east of the center of the storm. Pure stands of conifers suffered most, especially those of larger trees. The Shaker Pines north of Hazardville (70 years old and 80 feet high) were completely blown down. All the older stands of pine in eastern Connecticut suffered a similar fate. A beautiful stand of hemlocks in the Mashamoquet Brook State Park and similar stands in the Devil's Hopyard State Park were destroyed. The older plantations of Rainbow, the Middletown Water Board and the Nipmuck State Forest in Union, and those belonging to Mr. Goodwin in Hampton suffered severely. In almost all cases the evergreens were uprooted(P250). In mixed stands the large dominant trees suffered most. There was more breakage among the hardwoods than in the softwoods, and this was particularly evident in the extreme southeastern part of the state where the rainfall had been relatively light. Ravines suffered especially because of the funneling of the wind through them. In general, mixed hardwood stands under forty years old had little damage, and softwood plantations under fifteen were seldom damaged.

A compilation of data from the various towns of the state showed an estimated loss of 100,000 public shade trees. This does not include privately owned shade trees on lawns and estates. The forest damage was estimated at 368,000,000 board feet and 1,500,000 cords in small trees. About one-fifth of the total timber of the state was blown over. The entire forest damage was estimated at $1,660,000 which was about 6 percent of the total property damage caused by the hurricane.

I was in northern Vermont on the Canadian border attending a family funeral the day of the hurricane. It struck there with diminished force at about 7:00 p.m., but we did not know it was a hurricane until the next day. The wind blew a gale all night accompanied by heavy rain. The following day as we drove to Boston, we saw more and more damage as we traveled south--single trees broken and tin roofs blown off barns in northern Vermont; then whole stands of pine blown over in New Hampshire. Some roads were closed by floods or fallen trees. From Boston I took a train to New Haven, and then a bus to Hartford as the Connecticut River made all bridges impassable except near the mouth of the river.

A day or so after my return, I attended a conference of State officials in Governor Cross' office, and presented a plan for fire hazard reduction.(P251) The Governor appointed Col. Thomas Hawes as State Coordinator to handle the various lines of state rehabilitation.

Harvard University, disregarding the advice of all the leading foresters of New England who had recommended the appointment of Professor Al Cline to succeed Director Fisher of the Harvard Forest School at Petersham, had appointed Mr. Ward Shepard of Washington. There could hardly have been a worse appointment. Mr. Shepard knew nothing about forestry in New England and had had little training in silviculture. The hurricane destroyed the magnificent pine forest of the Harvard Forest, and Director Shepard was on the verge of a nervous breakdown. Not realizing the difficulty of burning green timber, he conceived the idea that all of New England was in immediate danger of conflagration, and rushed to Boston to get the Governor of Massachusetts to take immediate action. The Governor called a conference in Boston, but in the meantime the Massachusetts Forestry Association, under Mr. Harris Reynolds, had invited all New England forestry officials to a conference in Boston on another day. Governor Cross, who had imbibed some of Shepard's excitement, was much perturbed that I attended the conference called by Reynolds instead of the one instigated by Shepard.

At this Boston conference it was estimated that three billion board feet of timber had been

blown down in New England. It was evident that two main lines of work must be followed -- to salvage as much of the timber as possible, and the reduction of fire hazard(s). The Federal Government was petitioned to handle the salvage work in some such way as other surplus crops had been handled.(P252) The dramatic point in this conference was reached when John Foster, State Forester of New Hampshire, stated in his calm way that he did not consider that there was any danger of an immediate conflagration so long as the timber was green. Mr. Ward Shepard became so red in the face and so outraged I thought he would burst a blood vessel. He was indignant that a forester should make such a statement.

Upon my return from this conference, I called a meeting of our forestry employees, C.C.C. camp superintendents and others interested, and laid out plans for fire hazard reduction. For purposes of fire protection the hurricane zone was divided into nine fire control areas using rivers and state highways as boundaries. The sides of these roads were cleaned up by January 1, 1939 to a width of 50 feet in hardwoods and 100 feet in softwoods. This cleaning consisted of cutting and burning small branches and twigs of wind thrown trees. Tree trunks and usable limbs were left on the ground for the owners' use on the theory that these are not readily inflammable. Upon the completion of the work on the roads bounding the main areas, these areas were sub-divided by other roads into 61 fire blocks.

From the day of the hurricane the C.C.C. had rendered valuable service to the Highway Department and the various towns in opening roads, doing sanitation and other emergency work. After that, all efforts of the C.C.C., of whom ten camps remained, were concentrated on fire hazard reduction. The U.S. Forest Service also sponsored a W.P.A. project to use 2,000 men in Connecticut, but except for a short period not more than a quarter of this number were available.(P253) Governor Cross made $10,000 available for W.P.A. transportation.

Early in January 1939, Governor Raymond Baldwin secured an emergency appropriation of $350,000 for repair of damage caused by the hurricane. Of this, $31,730 was allotted to the Forestry Department for fire hazard reduction. Twelve crews of 15 men each were employed from the beginning of February 1939 to supplement the work of the C.C.C. and W.P.A. with the result that the boundaries of the 61 fire blocks were cleaned before April 1. Debris was also cleaned away from practically all houses for a distance of 200 feet.

Congress passed a Deficiency Bill appropriating $5,000,000 for fire hazard reduction work in New England. Connecticut's share of this appropriation was $500,000. With this money the U.S. Forest Service employed 400 men to do similar work on areas which had not been covered by the State.

At my suggestion Governor Cross appointed three sub-committees to supplement the State Rehabilitation Committee. These dealt with forest fires, timber salvage, and forest rehabilitation. Dean Henry S. Graves of the Yale School of Forestry, served as chairman of this Forestry Rehabilitation Committee. One of his recommendations was that the Forestry Department should publish a bulletin summarizing the results of the hurricane describing the measures taken to relieve the situation and pointing out that the forests, even in their depleted condition, were a valuable asset to the State. This bulletin was prepared by me and published early in 1939. In the foreword I acknowledged contributions made by Dr. Raymond Kienholz and W.F. Schreeder.

Mr. Edgar Heermance, Secretary of the Connecticut Forest and Park Association, had urged that the Connecticut Forestry Department do the salvage work in the state by forming a corporation and borrowing money to finance it.(P254) I realized that in addition to the financial

risk involved we would be in competition with the other New England states which had a much larger amount of timber to dump on a swollen market.

The New England Emergency Project was established by the U.S. Forest Service early in October [1938] with headquarters in Boston, under Mr. Earl Tinker, and branch offices in each of the states. Arrangements were made with the Reconstruction Finance Corporation to set up the Northeastern Timber Salvage Corporation.

Immediately after the hurricane, I had issued publicity urging landowners who had lost timber, not to sell it at sacrifice prices. State Coordinator Hewes called a meeting of landowners in the State Capitol on October 11 when the tentative plan of the Government purchase was outlined.

Mr. Tinker appointed a Mr. Bean to take charge of the salvage program in New England. The overbearing attitude of this gentleman toward all New England foresters made him generally disliked and hurt the effectiveness of the organization. Later, some high grade foresters were transferred from the West to New England. Mr. H. Phil Brander, with headquarters in Hartford, had charge of the work in Connecticut for a time. He was assisted by D.D. Cutler in Willimantic, and E.B. Williams in Norwich. Mr. Grover Conzet, former State Forester of Minnesota, and Mr. A.B. Everts later did fine work in Connecticut.

The Timber Salvage Administration set up three grades of pine logs with prices of $18, $14, $12 per thousand feet delivered at designated stations.(P255) However, the owners received only 90 per cent of these prices as 10 per cent was retained by the R.F.C. to assure the financial success of the program. All pine logs were stored in ponds or sawed immediately. Twenty-one ponds in Connecticut were designated for the storage of pine.

Prices offered for hardwood logs such as white wood (tulip), yellow birch, sugar maple, ash and beech, red and white oak were $22.00, $16.00, and $12.00 respectively for first, second and third grade logs. Owners received $10.80 per thousand board feet for hemlock, hardwood tie logs and third grade pine. There were 175 stations established for the delivery of hardwood and hemlock logs.

This was the first time, so far as I know, of any attempt to grade logs in Connecticut, and I hoped very much that it would become a permanent practice. My observations in European forests had convinced me that except where the main market is for cellulose, the main profit to be derived from the practice of silviculture must be from the quality of the products produced rather than from increased quantity. The establishment of permanent grades for logs would be an important incentive for the practice of silviculture. That this result did not eventuate was doubtless due to the small quantity of high grade lumber in the present Connecticut forests.

The buying of logs by the New England Timber Salvage Administration began about the first of 1939 and continued until May 30, 1940. During that period, a total of 19,735,000 board feet of logs was purchased in Connecticut at a cost of $239,500.00, or an average of $12.15 per thousand. Of this, 12,958,000 were softwoods and 6,777,000 were hardwoods. A survey of the private salvage operations indicated that about 65,000,000 board feet of logs were salvaged privately, or over three times the amount salvaged by the Government.(P256) The combined total of the timber salvaged was about 85,000,000 board feet and there was probably another 15,000,000 board feet still salvable besides a large amount too remote and too scattered to pay for removal.

The members of the State Rehabilitation Committee appointed by Governor Cross after the hurricane were as follows: Edward G. Moran, Chairman, Norwich; John B. Findlay, Stonington; J. William Belanger, Norwich; John W. Sheedy, New London; Aurin E. Payson, Norwich; Joseph Bransfield, Portland; E. Kent Hubbard, Middletown; Napoleon J. Fournier, Moosup; Rev. William Dunn, Warrenville; Lawrence M. Dillon, Rockville; Dr. E.R. Dimock, Mansfield, Commissioner of Domestic Animals; William L. Mooney, West Hartford; Thomas W. Russell, Hartford; Samuel H. Graham, Suffield; James J. Clerkin, New Britain; Charles E. Hart, Waterbury; Henry S. Graves, New Haven, Dean of Yale School of Forestry; Albert E. Lavery, Bridgeport; Edgar L. Tucker, Shelton; John McCarthy, Newtown; Col. Samuel H. Fisher, Litchfield; Gen. Sanford H. Wadhams, Torrington, State Water Commission; Vincent J. Sullivan, Bridgeport; Robert A. Hurley, Hartford, State Relief Coordinator; Joseph M. Tone, New Haven, State Commissioner of Labor; Austin F. Hawes, West Hartford, State Forester and Fire Warden; Charles J. McLaughlin, Hartford, State Commissioner of Taxes; William J. Cox, New Haven, State Commissioner of Highways.

Among the sub-committees appointed were the following:(P257)

1. Down Timber, Reforestation, and Roadside Planting - Dean Henry S. Graves, Chairman; Joseph Bransfield, Putnam; Edgar L. Heermance, New Haven; James H. Morgan, Hartford; Col. Thomas Hewes, Farmington; R.C. Barrows, Stafford Springs; Professor R.C. Bryant, New Haven.
2. Fire Prevention - B.C. Barrows, Chairman; John A. Coggeshall, Norwich; James W. Dibble, Saybrook; Warren Logee, Thompson; Louis G. Tolles, Southington.
3. Forest Rehabilitation - Dean Henry S. Graves, Chairman; W.O. Filley, New Haven; A.W. Spaulding, Suffield; Floyd M. Callward, Storrs; Christopher Gallup, North Stonington.

The report of the Rehabilitation Committee to the Governor estimated the total damage to the State caused by the hurricane as follows:

Agriculture (exclusive of timber)	$10,000,000
Manufacturing	$5,750,000
Public Utilities	$4,370,000
State Highways and Bridges	$2,370,000
Other State Property	$930,000
Timber	$1,660,000
Mercantile	$1,000,000
Fishing	$1,000,000
Churches and Cemeteries	$400,000
Total	$27,480,000

The following forestry recommendations were made by the Rehabilitation Committee:(P258)

12. Shade Tree Planting - That in 1939 the Governor proclaims Saturday, April 8, as Tree Planting Day in addition to Arbor Day, which is too late in the season for effective planting.
13. Forest Fire Fighting - An emergency appropriation for labor and equipment to meet the unprecedented forest fire hazard in the State.

14. Advisor to Timberland Owners - An emergency appropriation to provide for the temporary services of a man to advise timberland owners, under the supervision of the State Forester, concerning the salvage of their down timber.
15. Salvage of State-owned Timber - An emergency appropriation for a small sawmill in the Pachaug State Forest to manufacture windblown timber for use by various State departments, and an appropriation for a revolving fund to finance the logging of down timber in the State forests.
16. Forest Products Study - An emergency appropriation for a study of the wood and wood products requirements of Connecticut industries.
17. Cordwood Marketing Study - An emergency appropriation for a study of practical methods of utilizing cordwood as fuel in homes, state institutions and industrial plants, and for its conversion into new products.
18. State Nursery - An annual appropriation for three years for the establishment, maintenance and operation by the State Forester of a state nursery with an annual capacity of at least one million transplants, such nursery to supply planting stock to farmers and other woodland owners at cost.
19. Forestry Research - An appropriation to provide for a continuation of the forest research program as a cooperative project of the State Forester and the Connecticut Agricultural Experiment Station.[(P259)]
20. Regulation of Clear Cutting of Young Timber - Consideration by the General Assembly of a bill to regulate “clear cutting” drafted by a joint committee representing the Connecticut Forest and Park Association and the Southern New England Lumber Manufacturing Association.
21. Town Forests - Consideration by the General Assembly of a bill to encourage town or community forests.

On March 4, 1940, Connecticut and most of the Northeast suffered from a severe ice or glaze storm. This region is subject to such storms whenever rain from warm upper air falls upon surface air of below freezing temperature. This, however, was the worst such storm which Connecticut had encountered since January 11, 1922. The damage from this former storm was chiefly in the northern part of the State, while most of the damage from the 1940 storm was in the southern part. A survey showed that the damage done to trees and forests was chiefly confined to a narrow strip 5 to 10 miles wide extending across the State parallel with Long Island Sound but back from it a distance of 1 to 10 miles. It extended from south of Danbury across to New Haven, eastward to Deep River, thence north of Norwich to Jewett City and Voluntown. Where the strip crossed the river valleys of the Housatonic, Connecticut and Thames, there was no damage as the air was evidently warmer. Damage was much the worst in Ridgefield, Easton and Stepney [Monroe], but it was general throughout the strip. Ridge tops suffered most.

Excessive ice formation broke wires, branches and the tops of trees.[(P260)] In parts of Easton the ice on telephone wires was an inch and a half thick. Trees loaded down in this way, when hit by the severe winds which accompanied the storm, were greatly damaged. Swamps of red maple and elm suffered particularly, nearly every tree losing from one to all of its branches. Roadside trees such as elm, ash and sugar maple, and in general large limby trees on hillsides, were badly broken. Species which proved most resistant were red, white and black oak, sugar maple,

hemlock and red cedar. Gray birch, hemlock and red cedar usually bent under the load of ice, and many of these later recovered.

The lasting damage from such a storm is of several kinds. Many trees are permanently deformed even if other branches take the place of those that were broken. The numerous wounds make these trees particularly susceptible to the attacks of insects and diseases, and the increased litter on the ground adds greatly to the fire hazard.

STATE GOVERNMENT

I believe Governor Cross was the first Governor of Connecticut to make the governorship a full time job. Other governors whom I had known - Roberts, Woodruff, Lake, Templeton and Trumbull – had continued to carry on their private businesses and only come to the State Capitol two or three times a week. Governor Cross, who was a retired Yale professor, had no business and gave his entire time to the job.

In view of the biennial requests for deficiency appropriations he felt that the Governor should have more authority in handling the financial affairs of the State.[(P261)] Hitherto, the various departments had brought in their requests at the beginning of the legislative terms, and had presented their arguments before the Appropriations Committee. Appropriations had, therefore, been considerably based upon the political influence of the departments either with members of this committee or with the party boss who for some time had been Mr. Henry Roraback. Governor Cross felt that the Governor should have first approval of the appropriations requested and should present a balanced budget based upon the anticipated revenue of the State. Being the first Democratic governor for some time, he also felt that some of the departments were filled with political appointees and that the governor had too little influence in the conduct of the State's business.

Upon his initiative, a Reorganization Commission was created by the General Assembly of 1935 which spent two years studying the governmental set-up of the State. Mr. Benjamin P. Whitaker, who did research work in Economics at Yale and was known by Governor Cross, was the administrative director of this Commission. He appointed "experts" to study the various departments and make recommendations. Mr. Nathan Canterbury, who had charge of the Yale Forest in Union, was the "expert" to study the Park and Forest Commission; the other special park boards and the Board of Fisheries and Game. There had doubtless been a desire on the part of Mr. Whitaker to combine these boards in one department, but Mr. Canterbury, probably through the influence of Professor Chapman, recommended against this. I believe that it was at this time, however, that the care of state monuments was placed under the Park and Forest Commission which assigned them to the Superintendent of State Parks.

The General Assembly of 1937 adopted the recommendations of this Commission and created the Commission of Finance and Control. Mr. Edward F. Hall, who had served under the old board of Finance and Control, was appointed Commissioner by Governor Cross although he was a Roraback appointee originally.[(P262)] The new set-up provided for three divisions under the Commissioner: Budget Division, Personnel Division, and Division of Purchases.

Mr. Benjamin Whitaker was the first Budget Director effective July 1, 1937. To what extent the Budget Director has been able to save money for the State would be impossible to determine. It was doubtless inevitable as the State's machinery became more and more complicated, but

State expenditures have continued to mount, and deficiency appropriations have not been eliminated. That there has been added expense to offset economies is unquestionable. Greatly increased red tape has made it necessary to increase clerical forces and time required of all administrative officers for petty detail has, in many cases, resulted in lessened efficiency in performing the duties for which they were employed. The first step required by the Budget Director was to break down all requests for appropriations under four headings: Personal Services, Contractual Services, Supplies and Materials, and Equipment. There was a further provision for quarterly allotments under each of these heads. Whereas formerly the head of a department, knowing his appropriation could make plans for the biennial period, he was now obliged to make them quarterly. In the Forestry Department matters were still further complicated by the necessity of allotting money to the three District Foresters so that they would know how much woods work they could perform in a period.[(P263)] This difficulty resulted in the break-down of the District system several years later and a greatly reduced efficacy of the Department.

Mr. H.W. Marsh was the first Personnel Director. In his first report he stated that as of October 31, 1938 there were 11,756 State employees including 319 unpaid members of State boards and commissions, and that the annual expenditure for personal services for the year ending June 30, 1938 was $16,257,665.

The Merit System Act provided for the classification of positions and schedules of compensation for the various classifications. A service record system was established for all employees, and regular reports were required from heads of departments for all employees, rating them under several headings. These reports and the various forms required in employing new men, even on a temporary basis, very much increased red tape. One good thing accomplished under the Merit System was the promulgation of a rule by Governor Cross against soliciting contributions from State employees for party politics. This practice had always been a source of embarrassment to non-political employees.

Of the 82 examinations held by the Personnel Director during the first year was one for Forest Products Technician at a salary of $3,000 through which Mr. William Shepard was selected, as mentioned in the previous chapter. The examining board follows: Dean Henry S. Graves, Professor H.H. Chapman, and Professor A.E. Moss of Connecticut State College. Another examination was given for Forest Ranger at a salary range from $1,500 to $1,920. The examiners were Professor Moss and Mr. Floyd Callward, Extension Forester.

Mr. Edward C. Geissler was the first Supervisor of Purchases. Here, if anywhere, an economy for the State was affected, and without unusual burden on the departments.[(P264)] All purchases exceeding $1,000 were made by the Supervisor. Smaller purchases were made as previously, by the departments, but after securing three competitive bids. The greatest saving was naturally in the State institutions.

While mention of this new administration was made in the previous chapter, it has seemed advisable to deal with it more in detail because of the important bearing it had in later years upon the eclipse of forestry. It certainly was not the intention of Governor Cross that the Commission of Finance and Control should become a super-government as it later became.

STATE PARK AND FOREST COMMISSION

Governor Raymond Baldwin succeeded Governor Cross in January 1939, and served a two-year term when he was succeeded by Mr. Robert A. Hurley.

Mr. Dwight Wheeler, who had been appointed to the Commission by Governor Cross, was also a member of the Prison Board, and since he found the work of that Board more to his liking he resigned from the Park and Forest Commission, and Governor Baldwin appointed in his place Mr. George Waldo, also of Bridgeport. Mr. Waldo, as the owner of the Bridgeport Post, had considerable political influence. Otherwise, the Commission remained the same through Governor Baldwin's term, with Professor Chapman as Chairman.

Governor Hurley appointed Mr. Julian Norton of Bristol to replace Mr. Edward Wilkins who had served faithfully on the Commission since its organization in 1913. Mr. Norton was one of the owners of the private park at Lake Compounce.

On June 11, 1941, the Commission sustained an irreparable loss in the death of Mr. Lucius F. Robinson who had so long and so capably served as its Chairman.(P265) Mr. Robinson was a man of sound judgment and conscientious devotion to his public duties. His death marks the beginning of the loss of prestige of the Park and Forest Commission and the consequent injury to the forestry movement. Although Professor Chapman was one of the leading foresters of the United States and had the same devotion to duty as Mr. Robinson, he did not have the prestige in Connecticut or the political influence which were so essential in the years to come. Governor Hurley appointed Mr. John J. Curran of West Haven to succeed Mr. Robinson. Mr. Curran was a very likeable man but had no particular qualifications for this Commission.

Mr. Waldo became Vice-Chairman of the Commission.

ADMINISTRATION AND PERSONNEL OF FORESTRY DEPARTMENT

The Forestry Department sustained a serious loss in the death on March 31, 1939, of Mr. E.M.C. Eddy, Supervisor of Fire Wardens. Mr. Eddy was a pioneer in fire suppression and was instrumental in bringing about the use of water for firefighting at a time when back-firing was responsible for extensive losses. He had been on the staff of the Department since July 1930.

As a result of the Merit System examinations above referred to, four new forest rangers were employed during the first biennium of this period:(P266) C. Bradford Bidwell to have charge of Nipmuck, Shenipsit, and Nye-Holman forests; Francis A. Wood to have charge of Pootatuck, Mattatuck and Naugatuck forests; Arthur Brooks to have charge of Tunxis, Peoples, American Legion, Paugnut and the newly acquired Algonquin forests; and Myron Hadfield to have charge of the government-leased land at Pachaug and Quaddick. These additions brought the total number of forest rangers up to 11 so that each ranger had an average of two state forests to manage.

In view of this more adequate force and in line with recommendations made by the U.S. Forest Service, the department was reorganized effective July 1, 1939, making the three District Foresters and 11 forest rangers responsible for the administration of the forest fire work as well as of the state forests. Thus, there were 11 men to supervise the forest fire wardens instead of two - Lathrop and Eddy. As of this date, there were 25 permanent employees in the Forestry Department, 10 having headquarters in Hartford and 15 in the field. The functions of the department were threefold, and salaries were distributed among these three activities thus:

1. Prevention and control of forest fires	$16,550
2. General forestry education	$4,527
3. Administration and management of state forests	$27,323
Total	$48,400

When it became evident that little more work could be expected of the C.C.C., arrangements were made with the Personnel Department for the employment of a Silviculturist as authorized in the biennial appropriation.(P267) Here, again, the result of the examination was as desired, and Dr. Raymond Kienholz was appointed. He was responsible for working out policies affecting the silvicultural management of the state forests. The State Forester was now assisted in the supervision of the work by four technicians: W.F. Schreeder, Forest Engineer; C.B. Lathrop, Assistant State Forest Fire Warden; W.C. Shepard, Technician in Forest Products; and Dr. Raymond Kienholz, Technician in Silviculture.

Owing to the retirement of Ranger Joseph Synnott on July 1, 1941, and the resignation of Ranger John Jacobson on January 1, 1942, it became necessary for the Personnel Department to hold another examination for Forest Ranger in the fall of 1941. As a result, Mr. Harry McKusick was appointed to succeed Mr. Jacobson as Ranger in charge of Cockaponset. Mr. Francis Wood was transferred to take Mr. Synnott's place in charge of Meshomasic. Because of the numerous fires in the southwestern part of the state, the area was divided into two ranger areas; Mr. Wallace Wollack was appointed to take charge of the Pootatuck area, and Mr. John Greene of the Naugatuck ranger area, which included Mattatuck. There were, therefore, 12 rangers at the end of this period.

Under a cooperative arrangement with the U.S. Soil Conservation Service, two farm foresters were employed - Mr. L. Everett Pearson beginning March 1, 1941. He was quartered in Mr. Parker's office. He graduated from the New York State College of Forestry in 1923. His work was confined to Litchfield County and the portion of Hartford County west of the river. Mr. Gregorie LeClerc who was employed in May 1942, had charge of Windham County and adjoining towns in Tolland County, and was quartered with Mr. Winch. He resigned to enter the war [World War II] in September 1942 and was succeeded by Mr. Raymond K. Daley.(P268)

In cooperation with Extension Forester Callward, these men were to give advice to forest owners and assist them in handling their forestry problems. The work was first started in the Western District.

Under the cooperative agreement, the Soil Conservation Service paid two-thirds of the salary cost of these men, and the State one-third.

THE C.C.C. CONTINUED

In the previous chapter a table was given showing the dates of closing the various C.C.C. camps. From this it can be seen that there were 10 camps until about the middle of 1941, and 2 camps – Lonergan and White - until 1942. Those closed in 1941 were Cross, Toumey, Robinson, Fernow, Filley, Hadley, Buck and Conner. At the close of this period the U.S. Army was still retaining the custody of 9 of the camps for possible army use.

As stated above, most of the work of the C.C.C. boys after the hurricane was in fire hazard

reduction. Some work was also done in the salvage of wind-blown trees on the state forests.

Altogether during the four-year period, 31,626 cords, 44,421 posts, 5,120 poles, and 3,172,921 board feet of logs were cut in the state forests mostly by the C.C.C. The figures include small amounts cut by State employees and some sold on the stump.

Thirty-four additional miles of roads were built bringing the total in the state forest system up to 184 miles valued at $471,000. The new roads included the Gold and Titus roads in Housatonic, Bear Swamp road in Mohawk, Binney road in Algonquin, Barnes road in Peoples, Pine Mountain and Hall roads in Tunxis, Jericho and Cedar Swamp roads in Cockaponset, Mulford and Mott Hill roads in Meshomasic, Avery road in Shenipsit, Fayette Wright road in Natchaug; Green Falls and Lawrence roads in Pachaug.(P269) The objective in road building was to have roads within half a mile of all points in the state forests for protection purposes. It was, of course, unfortunate that the state forests had not been consolidated as a much larger area of State-owned land could have been protected, with the same road mileage. Experience indicated that it required an average of 5,000 man days of C.C.C. labor to build a mile of road. This was distributed approximately as follows: 15 percent for clearing, 56 percent for sub grading, and 29 percent for surfacing.

In addition to roads, three buildings were constructed by the C.C.C. The most important was the office building for the Western District built in the American Legion State Forest. This was constructed entirely of materials from the state forests including clapboards, shingles, oak flooring and trim. Particularly worthy of mention is the main office room which was finished entirely of native black cherry. The other buildings included a ranger house for Shenipsit State Forest, and the renovation of the old Hart house in the Mohawk Forest. Five rangers at this time were housed on State forests, six living near forests.

One of the largest construction projects undertaken by the C.C.C. was the Green Falls dam in the Pachaug Forest. This dam of rubble masonry construction is 548 feet long, 6 feet wide at the top, and 16 feet at the base. In depth it measured 10 feet at the ends and 26 feet at the center. The masonry volume was 2,930 cubic yards and there were 2,840 cubic yards of back fill. A total of 9,313 bags of cement were used. The project consumed 15,853 man days, and the boys were congratulated for the fact that there were no lost time [due to] accidents.(P270)

The flood resulting from the hurricane broke the Phoenixville dam and caused considerable damage to the Fernow Bridge. It was repaired by substituting three steel “I” beams 71 feet long for the timbers originally used. The transporting and placing of these beams, each weighing 6 1/2 tons, was excellent training for the boys. A total of 2,222 man days were utilized in rebuilding the bridge.

The third major construction job was a retaining wall 627 feet long to protect the bank of the Farmington River in the Peoples Forest. The wall contained 2,000 square yards of rock quarried from the forest. This wall stood up well against several spring freshets and would doubtless have lasted a hundred years had not the Farmington been subjected to the extraordinary flood of August 1955 when the river, swollen beyond the memory of man, cut back far above this wall and left it standing in the middle of the new river bed.

A number of smaller structures were built with the C.C.C. including three sawmill sheds with cement foundations for mills in Pachaug, Cockaponset and Meshomasic forests. Additional lumber storage facilities were provided at Mohawk and Meshomasic. At the Peoples Forest

nursery a pump house was built and equipped so that the nursery had an adequate supply of water.

The reduced enrollment in the C.C.C. after July 1940 was largely due to the increase in war industries after the start of the Second World War in September 1939. After the United States entered the war in December 1941 it became apparent to Congress that there was no need of the organization during the war, and the appropriation was withheld.

FOREST PRODUCTS STUDY

The sixteenth recommendation of the Rehabilitation Commission had been for an appropriation for a Forest Products Study of the State.(P271) This study was made possible through the cooperation of the U.S. Forest Service. Mr. Harold Shepard of that Service, was employed for some time in making this study, the results of which were compiled in a mimeographed circular.

The study showed the total annual consumption of lumber and wood products in Connecticut to be 283,000,000 board feet. This figure, however, did not include telephone and electric poles, fence posts, tobacco poles or fuel wood. This figure was considerably in excess of the previous Government estimate of 157,000,000 board feet in 1938, and was equivalent to a per capita consumption of 170 board feet. Only about 3 percent of the lumber consumed was grown in the State. The balance was being imported into the State approximately as follows: from the rest of New England, 25 percent; from the South, 26 percent; from the West, 45 percent; and from other parts of the country 1 percent.

The study showed that 78 percent of the material used in the State was of species not native in the State. However, most of it was no better than can be grown in the State as 70 per cent of the consumption was of such low grades as No. 3 common or poorer.

In his report, Mr. Shepard said, “Most of the fault found with lumber and wood products by the users is with respect to seasoning. The market naturally prefers well-seasoned stock. For all but the roughest purposes, accuracy of manufacture is an important consideration in the use of lumber.” He also pointed out that Connecticut lumber prices do not have to include the cost of long distance transportation.

The main elements of an essential program for Connecticut, according to this report, are as follows:(P272)

1. Expanded utilization of small-sized stock;
2. Expanded utilization of oak;
3. The growing of trees capable of producing large-sized stock;
4. Higher standards of manufacture;
5. Higher standards of merchandising;
6. Price competition with imported materials.

Mr. Shepard pointed out that the unfavorable conditions in the 1940’s were largely the result of unwise exploitation in the past and consequently too small a proportion of the State’s forest area is covered with mature trees.

ACQUISITION AND ADMINISTRATION OF THE STATE FORESTS

Mr. Chester W. Martin, who had served as a foreman in a C.C.C. camp and later under Mr. Bronson in the Agricultural Adjustment Administration, was appointed as field agent of the Commission on Forests and Wild Life on July 1, 1937. Except for the biennium of 1939-1941 when no State funds were available for acquisition, he has continued on the payroll up to the time of this writing (1956). His position was reinstated in 1941 as well as an appropriation for $50,000 for acquisition.

During the four-year period, the area of the State forests was increased from 71,418.7 acres to 78,023.6 acres or [by] 6,604.9 acres. In addition to the areas purchased with State appropriations and other funds, several gifts were received including 255 acres from Mrs. Anna Perry, 52 acres from Mr. Miles Roberts, and 41 acres from Mrs. Helen Kitchel, all in the Algonquin Forest; and 40 acres in the Nipmuck Forest from Mr. and Mrs. George Waldo. Some lands were exchanged in the Peoples and Tunxis Forests with the Metropolitan Water Board in order that lands adjoining the new reservoir might be consolidated and a new highway built around the north end of this reservoir.[(P273)]

The location of this proposed road had been under consideration for some time. Mr. Caleb Saville, the Superintendent of the Water Board, had been very insistent that it should cut across the beautiful ravine in the West Hartland Block of the Tunxis State Forest, one of the most scenic spots in the state forest system because of spectacular waterfalls. I had always opposed this location, and finally I took the Park and Forest Commission, Mr. Seville and Mr. Goodwin, the Chairman of the Metropolitan Commission, to inspect the area. Mr. Goodwin and the Commission immediately agreed with me that this ravine should be left undefiled. Consequently, the road was built higher up. In my opinion, a causeway could have been built across a narrow place in the reservoir for much less money than the several sites around the north end. However, the bonds of the Water Board were safe investments for the Hartford Insurance Companies, and it was not until fifteen years later that the water users had to pay for these expensive improvements through increased water dues.

In 1937, Mrs. Helen Kitchel had donated to the State a splendid tract of 499 acres in Colebrook situated between the Sandy Brook and the Village of Colebrook River. In that same year, Mrs. Janet M. Curtis and her sister, Mrs. Mary R. Wallace, had given 91.6 acres known as the Elijah Grant Hemlocks, located on Route 44 about half way between Winsted and Norfolk. At the time these tracts were received they were administered as part of the Peoples Forest although several miles from it.[(P274)] Now, with the additional gifts from Mrs. Kitchel and Mr. Roberts and the tract from Mrs. Perry which was also on the Sandy Brook, it seemed desirable to create a new State forest to comprise all these lands in Colebrook. The Park and Forest Commission therefore created the Algonquin State Forest, appropriately named for all the Indians of Connecticut who belonged to this language group. A lot of 214 acres purchased from Robert V. Tomlinson brought the total area of this beautiful forest up to 1,459.8 acres.

Another state forest created in this period was the Wyantenock. The Spectacle Ponds Block of 315 acres which had been purchased some years previously by the State, had been administered as a block of the Mohawk State Forest. Since hunting was not permitted on the Mohawk Forest because of a condition in Mr. White’s deed of gift, the State Board of Fisheries and Game in its desire for more public hunting grounds requested that the Spectacle Ponds Block be made a separate forest. This was done, and the area was named Wyantenock in memory of a local tribe which had inhabited this region.

As mentioned in the previous Chapter, the U.S. Government leased to the State for 99 years the land it had acquired in the State through the Resettlement Administration. During the period under present consideration, an additional 1,517 acres was added to state forests. The total area under the jurisdiction of the Forestry Department as of June 30, 1942, was as follows:

State-owned land	78,023.6 acres
State-leased land	10,769.1 acres
Total	88,792.7 acres

It was distributed among 22 state forests so that the average area per forest was approximately 4,000 acres, and the average area under each of the 11 rangers was about 8,000 acres.(P275)

Since most of the products were cut by the C.C.C., they have been given previously.

For the year ended June 30, 1942 alone, the receipts for forest products amounted to $56,192.79 or 63 cents per acre for the entire area of state forests.

Because of the war, some foreign mineral supplies like that of mica (which usually was obtained from India) were cut off. In cooperation with the State Development Commission, mica deposits in the Meshomasic forest were operated.

Having been trained in the early days of the U.S. Forest Service when special stress was placed on Working Plans, and having seen the value of such plans in France and Germany, I have always been an advocate of such plans for forests that are sufficiently consolidated and which have a sufficient growing stock to make periodic cuttings practicable.

During this period, such Working Plans were prepared for three state forests---for Mohawk and Housatonic, prepared by District Forester Parker, and for Natchaug, by District Forester Winch. These plans included a record of all products previously cut from these forests.

Forest	Area Included in Plan- Acres	Period Covered	Amount Cut Cords
Mohawk	3,100	1927-40	10,606
Housatonic	5,319*	1931-41	10,803
Natchaug	6,132	1922-42	17,740
Combined	14,551		39,149

*The Canaan Mt. Block, which is being reserved as a wilderness area, is not included in the Plan.

An analysis of the forest types by acre in the three forests is summarized as follows:(P276)

Forest	Mixed Hardwoods	Forest Plantations	Hardwood Swamp	Softwood Hardwood	All other Types
Mohawk	1,530	663	100	402	405
Housatonic	4,680	266	160	54	159
Natchaug	4,389	683	448	145	467
Combined	10,599	1,612	708	601	1,031

Below is a brief summary of the age classes found in these forests assuming that the mixed age stands are, for the most part, less than 60 years of age, although they contain some trees up to 100 years in age.

Forest	Acres No Age	Acres Under 60 yrs	Acres Over 60 yrs
Mohawk	161	2,037	902
Housatonic	24	5,062	233
Natchaug	229	5,863	40
Combined	414	12,962	1,175

As in all forests in Connecticut, 89 per cent of these three forests were still too young in 1940 to produce lumber, while about 11 per cent of the area was approaching maturity, maturity being considered 100 years in hardwood stands.

The estimated timber and wood in the three forests is shown below:

Forest	Board Feet	Additional Cords	Total Stand in Cords
Mohawk	4,916,000	26,350	36,200
Housatonic	2,750,000	24,400	29,900
Natchaug	4,936,000	36,900	46,800
Combined	12,602,000	87,650	112,900
Average per acre	866	6	7.8

The annual growth in these forests was estimated at one-half cord per acre.[(P277)] It was the policy of the Department to allow at least one-half of the growth to accumulate until the forests reach maturity. The growth on these three forests was considered to be 7,250 cords, and the allowable annual cut, 3,625 cords. The first table above shows that 39,149 cords have been cut in the past 14 years (taking the average of the three forests), or 2,796 cords a year. Most of this production was during the life of the C.C.C. camps. From this it was evident that the cut could be increased by about 830 cords per year without harm to the forests.

The most essential part of a working plan is a series of prescriptions for the treatment of the various parts of the forest with an orderly plan of procedure so that all parts of the forest will be treated during the period under consideration. A 10-year period was considered to be about as long as we could foresee the conditions. As matters turned out, the whole forestry policy of the State was drastically changed before the termination of this period as will be explained later.

After the closing of the C.C.C. camps, little cutting could be done partly because of lack of funds and partly because of the shortage of labor during the war years. Thus the amount cut in these three forests during the two years ended June 30, 1942 was only 3,934 cords instead of the recommended 7,250 cords.

Altogether, by the time the camps were closed, 30,730 acres of state forests had been improved by cuttings or plantings.

Although of minor importance because of its small area, the Southern [Atlantic] White

Cedar swamps have considerable potential value because of the increasing demand for cedar for various purposes. Several of these swamps in the Pachaug State Forest and elsewhere were evidently deteriorating in quality through decreased stocking, retarded growth and character of composition.(P278) Hemlock and hardwoods were obviously crowding out the cedar. To counteract this trend, the Mount Misery swamp and the Edwards Pond swamp were laid out in square acre blocks with parallel roads 400 feet apart. The plan was to clear cut a few of these blocks each year in such a way that each clear cut area was bordered on two or more sides by uncut timber. The hurricane of 1938 made it necessary to discontinue this experiment but the results of cuttings made the two previous winters were most encouraging. Seedling counts made in 1941 showed from 90,000 to 107,000 white cedar seedlings per acre, and from 4,000 to 29,000 hemlock seedlings. In general, there were four times as many cedar seedlings as hemlock. On plots made in 1936 the cedar seedlings were already from three to six feet high in five years. The results clearly indicate that white cedar can be reproduced naturally by a clear cutting method whereas by any selection method the other species win out. Such cuttings, because of the swampy condition of the sites, can only be made in severe winters when the ground is frozen. The reproduction is so dense it will be necessary to devise some practicable method of thinning to assure continued growth.

On June 13, 1939, the Latimer Memorial Grove in Sterling was informally dedicated by the Daughters of the American Revolution [D.A.R.]. This is a forest plantation of 50 acres in the Pachaug State Forest just south of the village of Oneco. It was made possible through contributions from the various Chapters of the D.A.R. A total of 37,700 trees were planted chiefly of white and red pine, European larch, and Norway and white spruce. Mrs. Frederick Palmer Latimer, former State Regent for whom the grove is named, and Miss Mary C. Welch, Regent at the time, participated in the exercises.(P279)

RECREATIONAL USE OF STATE FORESTS

Approximately a quarter of a million people annually enjoyed the recreational facilities in the state forests, most of which had been developed by the C.C.C. A small parking charge of 25 cents in the congested areas just about covered the cost of keeping these areas clean. Not until 1941 was there any State money available for the operation of recreational areas in the state forests, and consequently the development of such facilities by the C.C.C. had been largely discontinued after 1936. Unfortunately, this agency was no longer available by the time money was provided for maintenance so little more was done in this line.

It was my feeling that the most important contribution that the state forests could make to recreation, besides preserving the beauty of the state, was to provide privacy for family groups who wish to enjoy solitude and the pleasure of wild areas. There is an almost unlimited opportunity for the development of small picnic facilities along the roads of the forests. This is borne out by the fact that sixteen of the forests had practically no visitors up to 1942 because of the lack of such facilities, although there are many attractive spots in them which could be so developed.

During this period, some of the people who were regular campers in the state parks organized the Connecticut Campers and Trailers Association. Mr. B.D. Scofield was the first president. The purpose of the association was to improve camping conditions in the State parks, since the only place in the state forests where camping was permitted was in the Matthies Picnic

Area of the Peoples Forest. The association did not concern itself with the forests although I was invited with Mr. Arthur Parker, to some of its annual dinners.(P280)

STATE NURSERY FOR FOREST TREES

As stated earlier in this History, the first state nursery for growing planting stock for distribution to landowners was established at Rainbow by the Connecticut Agricultural Experiment Station in 1905. After the establishment of the Northeastern Forest Nursery, the Experiment Station confined its activities to transplanting seedlings purchased from commercial nurseries, and selling transplants at cost. Of recent years, this transplant nursery had been in connection with the Tobacco Experiment Station at Windsor. For several years the Director of the Experiment Station, feeling that the function of the Station was purely research, had desired to have this nursery activity transferred to the State Forestry Department.

For about twenty years, the State Forester had maintained a nursery, at first in Simsbury and later at Barkhamsted, for raising stock to be planted on state land, but the Department had no authority to distribute stock to private owners. Since the establishment of the Agricultural Conservation Program by Congress, whereby farmers are subsidized for planting forest trees, there had been a deficiency of planting stock available for distribution in the State. .The State Agricultural Planning Committee, of which I was a member, sponsored a bill to authorize the Forestry Department to sell stock to private owners. As modified to meet the requirements of the Connecticut Nurserymen's Association, the bill passed the General Assembly of 1941 provided that the seedlings must be purchased by the State from a Connecticut nursery company, The Department hoped to establish under this bill a nursery with an annual capacity of one million transplants, and was assured that several nursery companies would raise seedlings.(P281) This proved to be a false hope as only two companies were able to bid, and only 450,000 seedlings could be purchased for the spring of 1942, 352,000 for the spring of 1943, and 350,000 for the spring of 1944. The prices were disappointingly high ranging from $6.25 to $7.00 and over per thousand for two-year seedlings. No orders were placed in excess of $7.00.

Trees transplanted at Barkhamsted [nursery] in the spring of 1942 were as follows:

White pine	261,350
Red pine	134,750
Northern white cedar	2,200
Norway spruce	19,650
Douglas fir	34,050
Hemlock	10,000
Total	462,000

WOOD UTILIZATION

Work done on this problem was under Mr. William Shepard. In addition to the charcoal kilns previously built in the Meshomasic and Pachaug State Forests, a third kiln was constructed in the Cockaponset forest. As compared to an average of 33 bushels from a cord of wood produced by the old pit method, we obtained an average production of 44 2/3 bushels and in some cases as high as 54 1/2 bushels per cord. In the two years 1941 and 1942, we produced 96,700 bushels which were sold at a profit of about $4,000, after deducting the cost of the wood

and supervision. All burning was done by contract.(P282) This was a most satisfactory utilization of low grade wood removed in thinning, particularly as it also served a local industry. The tobacco industry purchased most of the product.

Largely as a result of the revival of the charcoal industry by the Forestry Department, the Quinnebaug Company built in its forest in Union, three large brick kilns each with a capacity of 90 cords, and thus became the largest producer of charcoal in New England.

It seemed that there might be a further economy by using portable kilns which could be moved about in the forest. The Connecticut Agricultural Experiment Station at New Haven undertook an experiment in building such a metal kiln with a chimney, and published the results in a bulletin. These results were very satisfactory but unfortunately, about this time, all metals were placed under priorities because of war requirements.

The charwood stove designed by Professor Lauren Seeley of Yale, was mentioned in the previous chapter. Unfortunately, other war business of the manufacturer ended the production of this stove at a time when it was most needed. Consequently, the Agricultural Experiment Station undertook to develop a slow combustion unit to be built of brick to facilitate the more complete combustion of wood in connection with coal furnaces.

As the gasoline shortage developed early in the war, and submarine sinkings increased, it was apparent that coal and fuel oil would be short for the remainder of the war and that economy must be practiced in transportation.(P283)

At Governor Hurley's suggestion, the Department inaugurated a wood fuel campaign. With the help of the County Agricultural Agents, a Wood Fuel Coordinator was selected for every town, and county conferences were held with these people. The purpose was to stimulate farmers and others to cut wood and to find places where non-forest owners could cut. They were also to give inexperienced people advice about tools, buzzsaws, and teams for rent. Forest rangers were made available to mark the trees to be cut and to inspect cuttings to see that the woodlots were not mistreated.

Also, with the approval of Governor Hurley, Mr. William Shepard undertook an experiment in burning hogged wood in the boiler of the north building of the Niantic State Farm for Women. Because of priority restrictions there were many delays in securing necessary parts, particularly for the conveyer system. It was finally operated and it developed adequate heat, but there was a fire hazard in this building which made it inadvisable to continue. Governor Hurley also arranged to have wood burning experiments carried on by a Mr. Reed in a boiler at the Mansfield Training School. Arrangements were made to have round wood roll into the boiler, but because of the irregular form of hardwood logs they would not roll automatically, and the experiment was discontinued.

For some years prior to the war, we had tried to secure the cooperation of the Federal Government in the development of wood gas for power, particularly for farm power units. Soon after the war started in Europe, it became evident that there would probably be a gasoline shortage. Since considerable progress was known to have been made with the use of wood gas in Canada; Messrs. Lathrop, Shepard, and I visited the Province of Quebec in the summer of 1940. The Provincial Highway Department showed us two trucks and an Ingersoll-Rand compressor operated on charcoal gas. At the Technical School at Three Rivers we saw a Ford truck and Caterpillar tractors operated in the same way.(P284) A Ford coupe had been in constant use for

three years making some sixty miles a day without any trouble. Other similar equipment was seen operating at the Provincial Forestry School at Duchesnay, Quebec.

Upon our return, Mr. Lathrop equipped a Chevrolet truck with a similar unit with fairly satisfactory results. It was evident, however, that the carburetors of American cars need considerable adjustment to be operated satisfactorily with wood gas. It is worthy of note, however, that at that time there were half a million cars and trucks as well as tractors and stationary engines in Europe equipped with wood gas generators.

FOREST INVESTIGATIONS

Dr. Raymond Kienholz, in cooperation with the Connecticut Geological and Natural History Survey, undertook a forest survey of the State in September 1941 so that the condition of the forests could be compared with that of the two previous surveys. Only two counties were completed in this period, Fairfield and Middlesex. For the first time, some consideration was given to urban areas which are particularly important in Fairfield County where they cover practically 13 per cent of the entire area. As a result, only half of Fairfield County is classed as wooded as compared to 63.4 per cent in Middlesex County.

As in all surveys of the State, the prevalence of hardwoods is emphasized as 77.8 per cent of the woodland of Middlesex, and 75.8 per cent of that of Fairfield Counties are made up of hardwood types. It is interesting to note that northern hardwoods are almost entirely absent in these counties, and that the softwood types cover only 3.6 per cent and 1.9 per cent respectively of these counties.[(P285)] The large area of the old field type, 17.8 and 19.9 per cent respectively, is striking evidence that the abandonment of farm land had continued up to this time, 1940. The survey indicated a decreased area of the age classes old enough for lumber production. In fact, the bulk of the area in both counties was covered with a growth under 40 years in age indicating that over half of the forest area had been cut over since 1900.

Dr. Kienholz conducted another study in which careful measurements were made of over 3,000 hardwood trees that had been uprooted by the hurricane, mostly in the Meshomasic and Cockaponset State Forests and on the property of Mr. Curtis Veeder in Avon. From these and other measurements made later, a volume table was constructed for Connecticut hardwoods that was more accurate than anything previously available.

Studies were also continued in the pruning of red pine and in the relative depth of frost and snow in the open and in the forest. Some experiments were made in the poisoning of hardwood stumps with diesel oil.

AGRICULTURAL CONSERVATION PROGRAM

Mention was made in the previous chapter of subsidies allowed by the Federal Government for certain forestry practices; work done in Connecticut under this program between 1936 and 1942 is indicated below.(P286)

Year	Number of Acres Planted	Number of Acres of Woods improved
1936	27	---
1937	205	211
1938	150	223
1939	128	91
1940	380	271
1941	507	410
1942	377	64
Combined	1,774	1,270

According to these reports 1,774 acres were planted by farmers and 1,270 acres of woodlands improved in this 7-year period as a result of this program. In the spring of 1940, the Experiment Station distributed 565,000 trees, and the Agricultural Conservation Program, 265,000 trees. As 634,179 trees were planted on state forests, the total for the year was 1,464,179 trees.

FOREST TAXATION

In view of the revaluation of real estate to be made before February 1940, I published a circular in 1938 explaining the forest tax law. Previous to July 1, 1940, a total of 16,065.4 acres had been classified for 111 owners. It was evident that no law relying entirely on special classification of forest land would be affective.

FIRE PREVENTION AND CONTROL

The forest destruction by the hurricane aroused general interest in the fire problem. As a result, the sum of $4,500 was set aside from the Governor's Emergency Appropriation for the installation of two-way radio communication in lookout towers and cars; this was the beginning of an elaborate system of communication.(P287) Three lookout towers - Glastonbury, Sterling and Storrs -and four cars were equipped at the time and were available for the fire season of 1940. Two-way communication was satisfactory up to a radius of 20 miles, and was occasionally heard much further.

Two new steel lookout towers were built in the devastated area--one 75 feet high on the Bolton range in Glastonbury, and one 35 feet high in West Peak State Park in Meriden. This brought the total up to 19 towers available in 1940. I was obliged to veto Mr. Lathrop's desire to make the Glastonbury tower the central dispatching office for the state. Experience had demonstrated that more efficient results could be secured by having the District Foresters act as dispatchers as they were closer to the scene of action.

Perhaps the chief benefit Connecticut derived from the U.S. Forest Service participation in

the work resulting from the hurricane was the adoption of some of the Federal methods of handling large fires. One of these was to have a fire boss in charge of a large fire stationed at a central location available to a telephone.

The Forest Service also lent us the services of Mr. Don Rochester, a very efficient man, who instructed our District Foresters and Rangers in methods of holding training schools for fire wardens and crews. This was particularly important in connection with the war effort. From the time the first Air Raid Warden schools were organized, the Forestry Department participated in the program, realizing that the control of forest fires might be an important and difficult part of the war effort. Crews organized by the town air raid wardens were trained by the Department. The League of Sportsmen's Clubs also undertook to organize crews as their contribution to the war effort. As a result, a total of 276 trained crews were available by the spring fire season of 1942. Most of the training was done by the Rangers.

With the growing scarcity of men as the war progressed, we were obliged to place more reliance on firefighting equipment.(P288) By the spring of 1942 we had 24 power pumps located at 18 stations with a total pumping capacity of 101,500 gallons an hour, and 50,000 feet of hose. Of the pumps, 14 were portable and 10 were transmission pumps. Hand equipment in the hands of the fire wardens included 2,348 knapsack pumps, 968 water carriers, 3,500 pails, 2,540 shovels, 2,740 brooms, and 2,950 fire rakes. This was a far cry from the almost negligible equipment available twenty years previously.

The spring of 1941 was unusually dry; in fact, it was the most prolonged drought since the establishment of the U.S. Weather Bureau Station in Connecticut. This resulted in a fire hazard very similar to that of 1930. Fortunately, the improved organization with the more adequate equipment made it possible to control all but six of the fires within 100 acres. For the first time under such adverse conditions, all fires were extinguished without the aid of rain. The four fires which reached large proportions in 1941 were as follows:

1941 fires No. Name	Date	Area Acres	Estimated Damage	Cost of Extinguishing
1. Ledyard	Apr. 21-24	1,383	$3,500	$1,938
2. Mattatuck	Apr. 28-29	386	$1,125	$425
3. Prospect	Apr. 29	360	$2,160	$444
4. Waterbury	Apr. 22-23	259	$777	$179

The fire season in the spring of 1942 was also very serious. On the worst three days of the season there was an average of 41 fires per day. During these three days, an average of 12 power pumps with an hourly capacity of 53,000 gallons were used on 10 fires a day. Five fires burned areas exceeding 100 acres as follows(P289):

1942 fires No. Name	Date	Area Acres	Estimated Damage	Cost of Extinguishing
1. Waterbury	Apr. 24-27	279	$837	---
2. Voluntown	Apr. 25-28	1,723	$9,000	$2,608
3. Groton	Apr. 26-29	1,648	$5,500	$2,015
4. Sterling*	Apr. 30-May 5	l,515	$2,000	$8,069
5. Killingly	Apr. 30	204	$600	---

*The Sterling fire burned 20,000 acres in Rhode Island. Ranger Abbott deserved special credit in his capacity as Fire Boss in charge of the Voluntown and Sterling fires; also, Rangers Standish and Bunnell in charge of the Groton and Killingly fires, respectively.

The Sterling fire was unusually disastrous because it was started by an incendiary who used cunning and experience in setting fire in several places almost simultaneously. He was arrested by the State Police, tried, convicted of arson for burning several buildings at other times, and sentenced to State Prison for a term of years. This proved the most expensive fire in the history of the Department.

During the 9-year period 1922 to 1930 inclusive, the State had 27 fires over 1,000 acres each, which burned a total of 53,080 acres.

During the 12-year period 1931 to 1942 inclusive, the State had only four fires over 1,000 acres which burned a total of 6,269 acres.

One of the great factors in reduction of the fire damage was the effort to enforce the fire laws in spite of the apathy of the local courts. In 1941 alone, 54 arrests were made under the Forestry laws and 54 convictions were obtained. The fines and costs collected amounted to an average of only $12.62 per conviction.

The cooperation of the various radio stations of the State in announcing the fire hazard conditions was steadily improved, and this system is undoubtedly a most important factor in making the public fire conscious with the subsequent decline in fire damage.(P290)

SHORTAGE OF WOODS LABOR

As the war progressed, woods labor became almost non-existent. In fact, ever since the W.P.A. program it had been very difficult to induce men to undertake hard work of cutting and yarding wood.

One of the saddest things about the industrial age is the fact that many young men are forced into our factories by economic pressure, who would much prefer outdoors work. This had been particularly noticeable in connection with the C.C.C. camps as many boys had asked me or the camp superintendents about the possibility of settling in the woods. This condition led me to submit a memorandum to the Commission on December 17, 1940, on a plan to establish C.C.C. graduates in rural communities. The plan envisioned settling young married men on subsistence homesteads near the state forests. Ample land would be provided where each settler could raise his own vegetables, small fruits, poultry and eggs. He would be guaranteed work on the state forests for six months, and would be free to work elsewhere the other six months.

In the subsequent Assembly, a bill was introduced to provide for a small number of such homes. Considerable interest was shown particularly on the part of farmers who were having difficulty in obtaining labor. The bill was defeated but the wisdom of the measure has been amply borne out. Since 1940 the Federal and State Governments have spent millions of dollars on housing developments, almost entirely of an urban nature. Houses are crowded so close together there is not sufficient land for gardens. School population in many Connecticut towns such as West Hartford and Manchester, has increased so rapidly that taxes are increasing more rapidly than Federal income taxes can be decreased.(P291) If a portion of this population had been

encouraged to settle in the more rural towns, all parts of the State would have benefited and these people would be in a much better position to face depression conditions, besides having an opportunity for outdoor work part of the year.

CONNECTICUT FOREST AND PARK ASSOCIATION

Mr. Goodwin Beach was succeeded as President of the Association in 1938 by Col. Clarence W. Seymour of Hartford, who served until 1940. He was followed by Mr. Christopher M. Gallup of North Stonington, who served through 1943. Mr. Heermance continued as Secretary throughout the period.

As mentioned in the previous Chapter, the Association had been active in organizing the Shaker Pines Forestry Corporation. Before purchasing this valuable tract of pine, careful consideration had been given to the fire hazard, forest taxation and the rate of growth. The one factor which never entered anyone's head was, of course, a hurricane. As the stand was entirely destroyed by the hurricane of September 1938, only a small part of its purchase price could be salvaged. The Shaker Pines Forestry Corporation was therefore discontinued. The small payments received by some of the stockholders were contributed to the Connecticut Forest and Park Association to form a revolving printing fund.

In 1938, the Association through its Nature Study Committee in collaboration with the Peabody Museum of Natural History, organized a series of weekly nature broadcasts. Those talks which were broadcast by Station WELI, New Haven, were regularly listened to by a number of schools.

On June 10, 1939, the Association held its spring meeting in the Naugatuck State Forest, with Governor Baldwin as the chief speaker.(P292)

On October l4, 1939, the Association met in Hurd Park in East Haddam. Professor George Garrett spoke on the fuelwood problem. Ranger Gordon Abbott demonstrated the value of the new Swedish pulp saw, Mr. W. Norbert Hill of Gales Ferry, spoke about his imported wood burning furnace and Professor Lauren E. Seeley on the new charwood heater which he had designed.

YALE SCHOOL OF FORESTRY

Col. Henry S. Graves, who had been Dean of the Yale School of Forestry since 1922, resigned in 1939. He had been of great assistance as Chairman of the Forest Rehabilitation Committee appointed by Governor Cross after the hurricane. On numerous other occasions he had helped the Forest and Park Association financially, and had helped me in my duties with advice.

He was succeeded by Professor Samuel Record. Professor Record was a world authority on tropical woods, and his acceptance of the position of Dean was somewhat unfortunate as he never enjoyed the work as much as conducting his research in woods.

The forest in Union, which Mr. Myers had given to the Forest School, had never been particularly valuable for school purposes because of the over cutting previously mentioned.

After the 1938 hurricane, there was not sufficient growing stock left for instruction in timber estimating or in forest management. Fortunately, Mr. Edward C. Childs, a graduate of the

School, came to the rescue. He not only offered the use of his Great Mountain Forest in Norfolk but built a very fine building for the school's use on the Canaan block of the forest.(P293) The school began using this forest in 1941 under a cooperative agreement between Mr. Childs and Yale University.

CHAPTER XI. FORESTRY IS SUBORDINATED TO PARKS - July 1942 to March 31, 1944

Part I. The Lathrop Affair.

(P294)For the purposes of this history it has seemed best to separate the Chapters with the termination of my service March 31, 1944, and the beginning of Dr. Kienholz' term on April 1 [1944]. Since the records of fires, land area acquired, and products produced from the forests are reported for the biennium ended June 30, 1944, they are included in this Chapter because more than three-quarters of the period antedated March 31.

The make-up of the State Park and Forest Commission will be considered at length later in this Chapter. Sufficient for the present that upon the termination on August 31, 1943 of the appointment of John J, Curran, who had been appointed by Governor Hurley to fill the vacancy caused by the death of Mr. Robinson, Governor Raymond Baldwin appointed his law partner, Mr. Arthur Comley, for a six-year term. It is interesting to note in Mr. Filley's report for this period that he and Professor Chapman had served the Commission thirty-one years; that the longest terms of past members had been twenty-eight years for Mr. Edward Wilkins, twenty-four years for Mr. John E. Calhoun.

Although Mr. Albert Turner was the Field Agent of the Park Department, it would not be fitting to overlook his death on June 29, 1944. He had been the first employee of the Park Commission and had served from 1914 to the date of this retirement, June 30, 1942. He, more than anyone else, was responsible for the present distribution of State Parks. The relations of the Forestry Department with him were always cordial, and I gained a great deal from his advice and suggestions.(P295)

ADMINISTRATION AND PERSONNEL

Although my retirement took effect March 31, 1944, I was given a two-month vacation because I had rarely taken my full vacation, and stopped work at the end of January. The Commission appointed Mr. William Shepard to be Acting State Forester, and he served during this two-month period.

Mr. C. Huntington Lathrop was first a temporary patrolman in the spring of 1924, but on July 1, 1925, he was appointed Assistant State Fire Warden. As already stated, he had mechanical ability which was of great assistance to me in developing the forest fire organization. This was shown in three important activities; the erection of steel lookout towers, equipping trucks with power pumps, and, later, the equipping of towers and cars with two-way radio. Unfortunately, he lacked tact, and frequently antagonized fire wardens and others.

For more than a decade, I had realized that he was not loyal to me or to the Forestry Department. He had, unfortunately, served a term in the General Assembly as a young man which had given him the idea that he was a politician. He had conceived the idea of separating the forest fire work from forestry and getting himself appointed in charge of the independent fire department with, of course, a large salary. This was probably not an original idea with Lathrop as men in some other states, holding similar positions, had the same idea.

For several years he had taken a small group of our men, including a carload of fire wardens, to fire conferences in other New England States. I had encouraged the idea, feeling that an exchange of ideas is always helpful, although I knew that Mr. Lathrop made these events opportunities to propagandize home wardens and State Fire Wardens abroad with his plans(P296).

Finally, I believe in the spring of 1942, he brought the State Forest Fire Warden of New Jersey to one of our fire warden meetings which was held at a shore resort. In open affront to me, this man, whose name I have forgotten, made a speech to our wardens advocating the separation of fire work from forestry on the ground that a more efficient fire force could be built up in that way. If Lathrop expected me to get mad and blow up, he was disappointed. I understood clearly his purpose in bringing this man before our wardens, and saw that given enough rope he would hang himself.

During the remainder of that year he continued proselytizing among wardens, and at one time he told Milton Stocking and Clark Standish that he had all of the counties, except Litchfield, back of his scheme. He assured these men that they would have excellent positions in his organization, but Stocking, and I presume Standish also, answered him that they were well satisfied in their present positions.

While a plausible case can be made for a separate fire organization to one unacquainted with the situation, the arguments are all on the other side if it is carefully studied. Under our climatic conditions our spring fire season is much the most dangerous, requiring a large force of men for a short period of two or three months. Occasionally, we have a very dry summer when we may have deep burning fires that are expensive to extinguish. Also, occasionally we may have a dry fall, but the danger then is rarely as great as in the spring. To maintain a force throughout the year adequate enough to handle the spring fires, and doing nothing but fire work, would evidently be unnecessarily extravagant.

As already explained in these pages, I had integrated the forestry and fire work under our District Foresters so that men could be transferred from one kind of work to the other as conditions required.(P297)

The fact that Foresters as a group are more interested in constructive forestry work than in the negative, although necessary, fire control, makes them particularly anxious to keep fires at a minimum. On the other hand, an organization employed solely for fire work might soon work itself out of a job if it were really efficient. Human nature being what it is, there would be little incentive for such an organization to eliminate fires as they have been nearly eliminated by foresters assisted by capable fire wardens.

I was often urged to discharge Mr. Lathrop for disloyalty, and under the old system might have done so as I had discharged inefficient lookout observers, patrolmen, and fire wardens. Under the merit system, it was not so easy as it was necessary to have a strong case with plenty of evidence to stand against the political influence he would be likely to bring.

Mr. Lathrop’s chief problem, as he visualized it, was to be sure that when the forest fire work was set up as a separate organization that he would be appointed to head it. He evidently did not feel sure that Governor Baldwin would appoint him, and finally concluded that he would have a better chance if it were set up as a branch of the State Park and Forest Commission on an equal footing with the Park and Forestry branches.

Information came to us in January 1943, that a petition was being circulated among the fire

wardens for them to sign, urging the separation of fire work from forestry. At first we did not see the petition and assumed it was the intention to remove the fire work entirely from the Commission.[P298] It therefore seemed a question of policy affecting the Commission, and Professor Chapman, as Chairman, wrote a circular letter to all fire wardens on January 14, 1943. This letter referred to the petition as intending to separate the forest fire work from the Park and Forest Commission. Professor Chapman did not question the right of petition of any citizen, but said the Commission was interested in learning the opinions of the fire wardens and asked them to write him their opinions. Of 23 responses received, 20 were in favor of retaining the present system of responsibility in the State Forester, and 3 were qualified. The petition never reached the Commission.

Early in the session of January 1943, two bills, evidently drawn by Lathrop, were introduced by a lady representative who at the time of the hearing expressed great regret for her action as she had evidently been quite ignorant of the purport of the bills. One of these bills was so evidently drawn to exclude anyone but Lathrop from the position of State Forest Fire Warden it was laughable. The appointee "must have had at least five years continuous employment in forest fire fighting apparatus"; he "must be able to supervise the construction of forest fire lookout towers"; he "must hold a radio-telephone operator's permit." This last provision drew the lines very close as few operators with such permits had the qualifications. To be sure that no one from other states with these qualifications could be appointed; it was further provided that the appointee must have been a resident of Connecticut for "at least ten years."[P299] The other bill was shorter and somewhat less specific in its qualifications. Both bills provided for the appointment by the State Park and Forest Commission.

These two bills - H.B. 1225 and H.B. 1224 - came for a hearing before the Parks and Reservations Committee of the General Assembly. Lathrop was the only one who spoke in favor on the basis that numerous town wardens were insistent that he do so. The hearing was so well attended the room was crowded. Several of the Park and Forest Commissioners were present as well as forest fire wardens and other interested people. Several spoke against the bills. Major Deane of Fairfield County openly stated, and evidently the Committee agreed, that the bill was an attempt to secure personal advantage by legislation. The Committee reported the bills adversely.

There was evidently now sufficient cause to discharge Mr. Lathrop for activities against his employer, the State Forester. Unfortunately, a new situation had arisen which will be described in detail later. On January 1, 1943, Mr. Donald B. Alexander had been appointed Administrative Director of the Park and Forest Commission. I realized from the nature of this man that he would be glad to get anything he could on Mr. Arthur Parker or me. It was also apparent that the attitude of the Commissioners was very different from that which had prevailed since 1921, and that they were not so much interested in the efficiency of the work as in making the employees of the Commission realize that they were puppets to serve the whims of the Commission. Expecting that Mr. Lathrop would bring political pressure, I did not propose to give Alexander any ammunition against me which he could have easily done by arguing that Lathrop had not been disloyal to the Commission, and that it would be to the advantage of the Commission to have three rather than two branches.[P300] Later, developments proved that I was right.

Professor Chapman as Chairman of the Commission, and Mr. Filley explained the situation fully to the Commission in executive session, and it was the consensus of the meeting, although no records were kept, that Lathrop should be given an opportunity to resign.

On February 25, 1943, Professor Chapman wrote to Lathrop asking for his resignation, previous to the regular meeting of the Commission on March 10. On March 8 he wrote a second letter relative to the roles of the Personnel Department.

No resignation had been received up to the time the Commission met, and the Commissioners were discussing taking action to discharge Lathrop when word was received over the telephone that he had resigned.

This ended Lathrop's employment. His whole action was the worst example of suicidal behavior that has ever come to my attention. He held a good position and had only a few more years before he would have been eligible for retirement at a fair pension. He never secured another good job, and died in 1953.

This should end the Lathrop story, but although out of place in the Chapter it may be well to add that he appeared before the Examining Board which was to choose my successor. Although he had not made formal application, he was admitted to the hearing on February 3-4, 1944. Senator Wolcott, one of the Examining Board, told Professor Chapman there had been such strong political pressure brought to bear on the Examining Board that the Board decided the easiest way was to have him in and get it over with. "*He was found,*" stated Senator Wolcott, "*to be so obviously unqualified for State Forester that it took only five minutes to dispose of him.*"(P301)

Later, on May 17, 1944, Mr. Thomas J. Dodd, later Congressman, wrote to Mr. George Waldo, who was the Chairman of the Commission, in behalf of re-instatement for Lathrop. The letter was referred to Chapman by Waldo who characteristically used Chapman's reply to further implicate him in a so-called plot to embarrass the Commission.

Obviously, this ended Lathrop's effort to be re-instated, although the correspondence on the subject between Waldo and Chapman did not end until June 28, 1944.

As late as January 28, 1945, the "Bridgeport Herald" published an amusing item under the heading, "Park Commission Feud Boils Again." This intimates "*that the controversy between the old guard and progressive elements within the Commission may soon reach the boiling point. Lathrop, who quit in disgust at the feuds and bickering in the organization, has been approached by members of the Commission to see if he is willing to put his knowledge of the State's woodlands again into public service. He is reported to have answered he would consider if convinced that a new deal had been declared and the Administration made one strictly devoted to the public weal. Lathrop served 18 years as warden, and organized what has long been regarded as a model of rural fire protection.*"

Whether this statement was inspired by Lathrop or Waldo does not appear, but it seems too subtle for Lathrop.

The resignation of Mr. Lathrop which took effect April 15, 1943, gave me an opportunity to complete the re-organization of the fire work. Fire control was being well handled by the District Foresters, Rangers, and Fire Wardens. There was no longer the need for a State Forest Fire Warden that had existed when we had only two or three Rangers.(P302) Also, the temptation to build up a political machine made it inadvisable to continue the position. What was needed was an expert on forest fire work to keep abreast of all new developments, advise the District Foresters and others, train fire crews, and provide the latest fire equipment. The position of Forest Fire Technician was therefore created on an equal footing with that of the Silviculturist,

and Forest Products Technician. An examination was given by the Personnel Department, and Ranger Milton C. Stocking, the highest ranking candidate, was appointed to the position on October 1, 1943.

Two changes were made in the ranks of the Rangers during the period. William B. Weed was appointed to take Mr. Stocking's place as Ranger in the Massacoe Forest area December 1, 1943, Ranger Francis Wood of the Meshomasic Forest area, joined the army, and his place was taken for the duration by G.K. Burwood on December 1, 1943.

In September 1942, Mr. R.K. Daley replaced Mr. G. LeClerc, [who] resigned, as Farm Forester for the northeastern part of the state. On November 16, 1942, Mr. George Cromie was appointed Farm Forester, first in the west central part of the state, and later in the southwestern part. In December 1943, Mr. Archie Hurford was appointed Farm Forester for the central part of the state. This made four farm Foresters in all - Mr. Pearson working out of Mr. Parker's office, Mr. Daley out of Mr. Winch's office, Mr. Hurford out of the Hartford office, and Mr. Cromie from New Haven.

THE STATE FORESTS

The General Assembly appropriated $400,000 to the Commission on Forests and Wild Life for the biennium. As a result, the area of State Forests was increased by 13,636 acres bringing the total to 102,449 acres.[(P303)] Of this total area 10,769 acres were Federal leased land, and the remainder State owned. The acquisition included a gift of 10 acres to the Mohawk Forest from Mr. Charles B. Curtis, the purchase of 12,176 acres, exchange of 76 acres, and transfer from the State Board of Fisheries and Game of 1,374 acres.

One new forest, the Nassahegon, was created by vote of the Commission on September 2, 1942, by dividing the former Nepaug Forest. Between the two blocks of that forest was a large area belonging to the Metropolitan District, which evidently could never be acquired by the State. The northern block continues to be the Nepaug Forest, while the southern block was called the Nassahegon State Forest. It was named for a local Indian chief mentioned in the history of the region.

The Simsbury State Forest, one of the oldest in the State, was finally given an Indian name - Massacoe - in conformity with the general policy of naming state forests. Massacoe was the old Indian name for Simsbury.

Although Quaddick is not a new forest, it was not formerly listed since it was entirely purchased by the Federal Government under the rural Resettlement Administration. Since it was now entirely leased to the State, it was included in the list as the 24th state forest.

Mr. Chester Martin continued to be the Purchasing Agent for the purchase of land. He spent considerable time in consulting with the various commissioners, which had never been the policy of employees of the Park and Forest Commission. It developed later that he was a candidate for the position of State Forester. Mr. Martin was assisted by Elliott P. Bronson, Thomas Hood and George T. Douglass.

In an effort to produce more timber for war needs, over one million board feet of stumpage was sold on the state forests.[(P304)] Because of a labor shortage, very little lumber - only 21,800 board feet of logs - was cut by the Department. Of the total cordage cut (6,800 cords) over three-quarters was sold on the stump. Practically all the hardwood lumber left from the 1938 hurricane

in the Meshomasic and Cockaponset State Forests was sold during the winters of 1942 and 1943. This amounted to 241,600 board feet which gave a return to the Department of $7,214.68.

The three charcoal kilns on the Pachaug, Meshomasic and Cockaponset forests were operated intermittently, and produced during the biennium 52,800 bushels of charcoal from 1,044 cords of wood, an average production of 50 1/2 bushels per cord. There was a profit on this operation of $3,298 or $3.15 per cord, more than would have been obtained by selling the wood itself. Most of this charcoal was used in the production of war material.

The forests from which the largest amounts of stumpage sold were:

Natchaug	236,300 board feet
Tunxis	175,400 board feet
Nehantic	147,700 board feet
Meshomasic	122,000 board feet
Pachaug	111,300 board feet
Cockaponset	103,200 board feet

Because of the labor shortage during the war, the number of trees planted on the state forests was slightly over 200,000 compared to 770,000 for the previous biennium. About half of the total number planted were, white Pine, 99,600 trees. Red pine was the only close competitor, 68,100 trees.(P305) The state forests where the largest amount of planting was done were: Pachaug 76,900 trees, Natchaug 30,800 trees, Cockaponset 20,000 trees, and Salmon River 19,650 trees. The total area planted in all state forests at the end of this period was approximately 10,000 acres.

The gas and tire shortage during the war, and the ban on pleasure driving, caused a drastic reduction in the attendance at the various picnic areas during 1943; but the lifting of the ban caused an increased use in 1944. Under these conditions the forests near the cities such as Paugnut and Massacoe, had much the largest attendance while the more remote forests had very few visitors.

Because of the local interest in Torrington, an appropriation of $10,000 was made by the General Assembly of 1943 for the development of the area on Burr Pond in the Paugnut State Forest, A road about 2,000 feet long was built from the town road into the beach thus making it possible to reach the recreation area without climbing a steep hill. A new parking area, capable of holding 50 cars, was built.

DISPOSITION OF CAMPS

Shortly after Pearl Harbor, the Civilian Conservation Corps turned over the remaining camps to the Army for any use that could be made of them, but the Army found little use for them as they were too small for their purposes. Camp Connor and Buck were turned over to the Farm Security Administration for the purpose of housing imported agricultural laborers. From the others the Army removed all or part of the equipment.

The following camps were turned over to the State Forestry Department by the Army:(P306) Toumey in the Mohawk Forest, Robinson in Tunxis Forest, Fernow in Natchaug Forest, Lonergan in Pachaug Forest, White in the American Legion Forest, and Filley in Cockaponset.

Camp Cross in the Housatonic Meadows State Park was salvaged by the Park Department. Camp Hadley in Cockaponset Forest was turned over to the Connecticut State Guard Reserves.

At Camp Lonergan the Department sold nine of the buildings for $1,400 to be salvaged by local residents. The remaining buildings were repaired to house woods workers. Five buildings at Camp Filley were sold for $1,000. The remaining 18 buildings were retained for possible use.

The Federal Transient Camp in the Nehantic Forest became the City of Hartford Transient Camp until June 21, 1943 when it was turned over to the Forestry Department. The transient camp in the Nepaug Forest became a National Youth Administration camp and later a War Food Administration labor camp for a short time. It was later turned over to the Forestry Department.

FOREST FIRES

The year 1941 was unusually dry resulting in a cumulative deficit of precipitation of nearly 12 inches. The spring of 1942 was also dry resulting in several large fires in late April. The largest of these, the so-called Sterling fire, April 30, burned 1,515 acres in Connecticut, and a much larger area in Rhode Island. The cost of extinguishing it was unusually large - $8,232. Two other fires burned in excess of 1,000 acres each: the Pachaug fire April 25 burned 1,723 acres in Connecticut, and the Groton fire of April 26 burned 1,648 acres. The 1943 season was more nearly normal with no fires in excess of 200 acres. The total number of fires was 1,363, burning a total of 9,993 acres, and 1,640 in 1943 burning 7,931 acres.[(P307)] An analysis by ranger areas made by Dr. Kienholz showed the worst areas, so far as frequency of fires, were Naugatuck, Nepaug and Pootatuck with over 300 fires a year in each of these districts. The Rangers of these districts at this time were: Saugatuck area, J.C. Greene; Nepaug, W.B. Weed; Pootatuck, W.W. Wollack.

The General Assembly of 1943 passed a bill enabling the State to recover “from the person causing such fire” “any sum not exceeding $200 necessarily expended by the State for extinguishing any grass, brush or forest fires.” Previously, all collections had been made voluntarily. While the full effect of this law was not apparent until 1944, there was an increase in the amount collected in 1943 over previous years. Thus, the amount collected in 1942 was $1,528 while in 1943 it was $2,151.

Because of the war danger, a special effort was made to organize and train fire crews. The Office of Civilian Defense created as one of its activities, the Forest Fire Fighters Service with David Godwin as National Coordinator, and a coordinator for each state. In Connecticut, the State Forester was the Coordinator. Local coordinators were appointed for each town. These coordinators along with the Forest Rangers organized crews consisting of persons from 16 to 60 years of both sexes. Many groups were organized in schools, boys clubs, scout troops, etc. These groups met for two-hour sessions once a week for seven weeks for special training. Altogether, there were 275 trained crews of 3,456 people available in 1942, and 315 crews of 4,096 persons in 1943.

Radio cooperation in giving warnings of fire danger was excellent. The State Forestry Department and the United States Weather Bureau gave the information to the various radio stations, classifying each day into four weather classes:[(P308)]

(1) Low hazard days on which persons were urged to do their burning;

(2) Medium hazard days when burning might be done in safe places up to April 15;

(3) High hazard days. This is the kind of weather during which most of the worst forest fires occur. Burning not permitted. Extreme care with smoking materials urged.

(4) Extreme hazard day, explosive weather. Any spark may start a fire. No permits issued.

Considerable progress was made during this period in equipping lookout towers and Rangers' cars with two-way radios. The spring of 1943 was the first season that all dispatching was done from the western and eastern District Foresters' offices.

STATE AID TO PRIVATE LAND OWNERS ACT

This Act, fostered largely by State Treasurer Carl Sharp and a few others, did not appeal to me from its inception and proved a failure partly because of the high cost of labor during the war. Throughout the Roosevelt Administration the Republicans had been criticizing the vast expenditures of public monies. This Act, fostered by Connecticut Republicans, continued the practice they had criticized but with less justification. Federal money under the C.C.C. program and most of the other programs could only be expended upon public land. Expenditures on private land were limited to protection from fire, insects and disease. Theoretically, at any rate, every taxpayer benefited from such expenditures, but under this new Act only a few landowners could benefit from this expenditure of State money. I had always believed in the expenditure of public money for education, which is simply an extension of our public school policy, but when it comes to doing actual work for private owners this seems to me rank socialism.

This 1943 Act, Sections 456g-460g, appropriated $100,000 for carrying out stand improvement work on privately-owned land, and $50,000 for reforestation on privately-owned land.(P309) These monies became available in October 1943. The law provided that the State Forester should supply men and equipment to do the work. It provided that the landowner should pay for the logs or cordwood produced at prevailing local rates for such material. Thus, when labor costs made it impossible to produce at such rates, the State had to assume the additional cost. In the case of reforestation, the landowner had to furnish the stock and pay the State one-half the cost of the work. In other words, the State subsidized private planting by paying half the costs. Practically nothing was done under this Act in the period here under consideration, previous to April 1, 1944.

H. Bill 738 amended the nursery law to permit the State Forester to purchase nursery stock outside the State when not obtainable from Connecticut nurseries.

WOOD UTILIZATION

The campaign to stimulate the production of fuel wood to relieve shortages of other fuels, coal and oil, during the war already mentioned, did not accomplish much. The shortage of labor was probably largely responsible, but the public did not become alarmed, and fortunately the war did not last long enough to cause serious shortages in imported fuel.

The issuance by the O.P.A.[24] of ceiling prices for fuel wood and regulations for its measurement stimulated an interest in legislation for legalizing methods of measurement. A bill was introduced specifying that the standard cord for Connecticut should be 128 cubic feet of compactly packed wood regardless of the length of the sticks. This bill failed of passage.

[24] Office of Price Administration

However, a bill sponsored by the Forestry Department making the International Log Rule the legal rule for the measurement of logs, was passed and will be used in all cases of dispute.(P310)

In a canvass made by the Farm Bureau of 10,725 farms, only 55 percent reported cutting wood. It was estimated that the annual cut by farmers was about 210,000 cords and that the industrial cut and that on state forests amounted to 30,000 cords, making the total cut of fuel wood about 240,000 cords. Due to labor shortage in 1942, it was expected that only about half as such would be cut for that year. The cost of cutting on state forests was then $3.50 per cord, but few men could be secured to cut.

SLEET STORM OF DECEMBER 1942

On December 29 and 30, 1942, the State suffered from one of its periodic ice storms. From Sherman, Southington, Waterbury, Southbury and Hartford northward the damage was severe, but only at the higher elevations. Little damage was reported east of the Connecticut River. In Norfolk only forests above 1,250 feet were damaged, while at Prospect the dividing line was at about 600 feet elevation.

Figure 49. Damage from the 1942 ice storm (Connecticut State Library collection)

The weight of the ice on the trees and wires was so great that very many trees had some or all of their branches broken off. During the storm the noise of branches and trunks snapping under their load of ice was like the sound of a continuous artillery duel, and the white scars of the breaks produced an appearance said to resemble a battlefield of France in 1918.

Damage varied from a few broken branches to trees entirely decapitated, and in many cases tree trunks were broken fairly near the ground. The weak wooded species such as poplar, were most heavily damaged; the stiff, unbending species such as elms, black cherry, the maples, black birch and the oaks were next, while pliant varieties like gray and White birch were only slightly damaged.(P311) Many people in this region considered the damage worse than that of the 1921 storm.

On the highest elevations the breakage was practically 100 percent. Red pine plantations suffered most in Hartland. Practically all trees were broken within two to six feet of their tops.

Considerable clean-up work was done later along roads in the state forests but thousands of cords of wood were left on the ground for lack of labor.

THE YALE SCHOOL OF FORESTRY AND THE ELI WHITNEY FOREST

Little has been said in these pages about the Eli Whitney Forest, which has been under continuous forest management longer than any other large forest in Connecticut. It is appropriate that it should be considered in this Chapter because it was in 1943 that Professors Ralph C. Hawley and Harold J. Lutz published a bulletin on the “Establishment, Development and Management of Conifer Plantations” in this forest.

The Eli Whitney Forest, which was acquired by the New Haven Water Company[25] for the protection of its water supplies, is a tract of 22,072 acres in the vicinity of New Haven. For most of the period considered in this bulletin it was under the management of Professor Hawley of the Yale School of Forestry. While a large part of the forest is of typical hardwoods with a scattering of hemlock, its chief interest for the layman lies in the 2,842 acres of conifer plantations. The Yale School of Forestry was started in 1900, and forest planting was started in a small way almost at once, on the Maltby Park area chiefly as training for students. The first nine years, the total area planted in this way amounted to less than 50 acres, but in 1909 planting on a larger scale was undertaken by the New Haven Water Company. Consequently, in 1943 there were only 24 acres of plantations older than 30 years; and 779 acres ten years or younger.(P312) The area between 10 and 20 years old was 819 acres; and that between 20 and 30 years, 1,220 acres. White and red pine have been the chief trees used, there being 922.7 acres of white pine, 1,283 acres of red pine, and 247.7 acres of mixed white and red pine. The only other species used to any extent was Norway spruce although there are a few acres each of Scotch pine, ponderosa pine, hemlock, European larch, and Douglas fir. Experience over the years has indicated that the native white pine is one of the most reliable conifers to plant in this region. There was a period when little white pine was planted because of the fear of the blister rust disease, and chief stress was laid on red pine. Later, it became apparent that this danger had been exaggerated, and when the pine shoot moth attacked the red pine on a large scale the planting of white pine again surpassed the planting of the red pine. The authors [Hawley and Lutz] say, "Forty years of experience leads to the conclusion that this species and Norway spruce and probably white spruce also are the best conifers for planting in southern Connecticut." "Experience has also shown that successful stands of red oak can be established either by direct seeding or by planting."

Mixtures of white and red pine have been tried in alternate rows but proved a failure because of the faster growth of red pine. Experience in this forest has been almost entirely with planting transplants, two year seedlings one year transplanted in the case of pine, and two year transplanted in case of spruce. "*Two year old seedlings of white and red pine are less satisfactory than three year old transplants.*"

"*For white pine and the spruces, a six-foot spacing has given a satisfactory survival.*" Six-foot spacing has proved too close for red pine and therefore a spacing of 8 by 8 feet has been used since 1930.(P313) Experience in this forest shows that red pine, when planted 6 by 6 feet, forms a canopy, i.e. the branches come together by seven years. If planted 8 by 8 feet it requires 12 to 15 years. With white pine it requires about 14 years. Norway spruce is about the same.

"*A well-formed vigorous tree should, in general, have a live crown that extends approximately one-third of the way from the top of the tree down to the ground.*" This figure is a guide for thinning. In the case of white pine and Norway spruce, from 25 to 30 years are usually required before the crowns are reduced below one-third of the height, and in fact, the crowns of Norway spruce may be nearly half the total height at this age.

Pines and spruces are slow natural pruners, and the authors conclude that the dead limbs of such trees do not drop off until a plantation is 40 to 60 years old, and not always then. In order to get high grade clear lumber, artificial pruning of selected trees is essential. This is done in this forest in three operations, using ladders for the last two prunings, which produce clear logs about

[25] Now South Central Connecticut Regional Water Authority

17 feet long.

The various plantations in the Eli Whitney Forest, like those in the state forests, are convincing evidence that much more land in Connecticut should be planted with conifers. Some twenty-five years ago, there was a movement among some foresters led by the late Professor Fisher of the Harvard Forest, to criticize so much forest planting. While conditions in the vicinity of the Harvard Forest may have justified such criticism for that region, it certainly was not justified in Connecticut, and it is now unfortunate that more planting was not done in the period.

OTHER PRIVATE FORESTRY

In the Great Mountain Forest in Norfolk, Mr. Childs reports that several improvement cuttings were made in this period.[(P314)] In 1942 approximately 160,000 feet B.F. [board-feet] were removed from 16 acres. The trees were marked on a selection and group selection basis. In the larger openings where competing hardwood brush was removed, reproduction has become well established. Little work was done during the remaining war years owing to Mr. Childs' absence on army assignments.

Mr. James Goodwin, reporting on his Pine Acres Farm, states that under-plantings were made in 1942 in areas damaged by the hurricane. 3,000 Norway spruce and 8,350 white pine transplants were planted in the Chapin tract.

In 1942, 111 cords were cut from wind damaged trees, and 370 cords were obtained from improvement thinnings, also 7,700 board feet of logs and 56 cords were sold and delivered by freight to a fuel company in Stamford, and 510 cords were sold locally. In the winter, 1,787 Christmas trees were sold from 5 spruce plantations. The cost of cutting these was $219, and receipts amounted to $1,049.60 giving a profit on the operation, not including the cost of growing, of $830.

In 1943, he [Goodwin] cut 369 cords in improvement cuttings and sold 64 cords on the stump. Over 2,000 posts were also cut. About half of these were sold to towns for highway purposes. In December, 1,725 Christmas trees were cut and sold. Planting consisted of 4,000 white spruce 5-year transplants for Christmas trees in the open pasture near the sawmill.

EXTENSION FORESTER

Mr. Floyd Callward was on military leave from August 1942 until December 1945.[(P315)] During this period the work was carried on by Professor Neil W. Hosley and Professor Albert E. Moss as Acting Extension Foresters.

THE AGRICULTURAL EXPERIMENT STATION

During this period, most of the work of the Forestry branch of the Station was devoted to experiments with different types of charcoal kilns and treating of fence posts which did not come to full fruition until later.

Mr. Henry W. Hicock reported that during the period in which the Station distributed nursery stock ending in 1943, approximately 30 million trees were distributed. Allowing an average of 1,200 trees per acre, this was sufficient to plant 25,000 acres. Unfortunately, many private plantations were neglected and were either entirely ruined or much damaged by

overtopping hardwoods. It is therefore impossible to estimate the present area of the private plantations in the state.

THE CONNECTICUT FOREST AND PARK ASSOCIATION

At the annual meeting in the spring of 1942, Mr. Christopher Gallup of North Stonington, was re-elected President. Mr. Robert T. Clapp of the Yale Forest School was elected First Vice-President, and Mr. Walter Howe of Litchfield, Second Vice-President. Mr. Heermance continued as Secretary, and Mr. Harold K. English as Treasurer. These men continued in office until May 1944.

The Association lost one of its most valued members in the death of Mr. Curtis H. Veeder at the age of 81. On December 27, 1943, he had served as Vice-President from 1915 to 1920, as Treasurer from 1925 to 1929, and as a Director from 1930 until the time of his death. Mr. Veeder had often talked with me about the ultimate disposition of his tract on Talcott Mountain. Because of its proximity to Hartford, he left it as Penwood Park.[(P316)].

Part II. "The Four Horseman"

(P317)In writing this section, I am greatly indebted to Professor H.H. Chapman for his numerous memoranda and letters covering the period.

"In October 1942 at the informal meeting of the Commission, held annually to consider any problems of personnel or organization which might need attention, with H.H. Chapman as Chairman and all members being present, Mr. John Curran who had been appointed to fill the unexpired term of Lucius Robinson, led off with a complaint that he had not been shown proper attention on a visit to Hammonasset Park. The local superintendent was too busy to show him the park and had no one to send with him. Mr. Waldo then stated that he was dissatisfied with the lack of cooperation shown by Mr. Arthur Parker in the matter of posting signs on the highways to indicate park entrances, and said he was unwilling to represent the Commission before the public if its authority over its employees was not respected. Mr. Peale then cited an instance occurring nearly a year previously, to which he had never called Mr. Parker's attention, where a park employee at Rocky Neck had not permitted him to park in the employees' parking area and discourteously ordered him to park where he belonged. "

"The Chairman and Mr. Filley, members of the Commission for thirty years, shared with the late Chairman, Lucius Robinson, the feeling that results were what counted and that the general administration of the parks had given public satisfaction, that Mr. Parker used every effort to inculcate courtesy in his subordinates, and when he was informed of any untoward incident he promptly straightened it out. He and his father, George Parker of Hartford, represented two generations of park executives trained in handling just such questions. Filley and Chapman realized, as did the other members of the Commission, that Mr. Parker tended to be a one-man organization as far as general responsibility went; at the same time he had worked in close sympathy and cooperation with the late Field Secretary, Albert M. Turner who had a national reputation among park executives.(P318) *He, Turner, and Vader, the assistant engineer, were constantly studying and planning the development and improvement of the parks, keeping the plans fluid as lessons were learned from daily contact with use problems as they arose. When during the last two years under pressure of post-war planning it became necessary to project and crystallize these plans (as was done by Mr. Turner for the pavilion at Rocky Neck during the W.P.A.), these past years of planning and experience became the basis of the plans now being formulated and being submitted to and approved by the Commission.*"

"The now deceased Mr. Turner's retirement in 1942, about the time of the above discussion, raised the whole question of the future organization of the Park administration for the after-war period, especially in view of the fact that Mr. Parker himself would in two to three years be eligible for retiremen."

"At the same time, there was understandable pressure from the Bureau of Finance for effecting all the economies possible by combining various clerical functions of parks and forests, including the accounting office, drafting,

stenography; a second element was the desire of the various state offices such as the personnel director, for instance, to route State Park and Forest Commission business through one and the same person at all times. In their minds, a 7-man Commission which had two separate departments in its charge, could not function properly through two separate executive officers - the State Forester and the State Park Superintendent - but should funnel to them solely through one executive to whom these two technical administrations should be subordinate."(P319)

"Mr. Filley and the Chairman respected the principle of majority rule for the subsequent year, up to the time the Board decided to replace me as Chairman by Mr. Waldo because he was more in sympathy with the objective of establishing the authority of the Board over its personnel, both Filley and I went out of our way to make the plan work, and occasionally were rather rough on Mr. Hawes who, we thought at the time, was less cooperative than he might have been."

I [Hawes] knew nothing about this meeting until some time after when Professor Chapman and Mr. Filley told me about it at the Graduates Club in New Haven. They said they hoped, in the interest of harmony, that they could persuade Mr. Robert M. Ross to take this proposed administrative position not only because he was my friend but his tact was generally recognized. I do not think the position was offered to Ross, but at any rate when he was approached on the subject by Chapman and Filley he declined to consider such an offer. He had held a good administrative position with the Soil Conservation Service ever since leaving Connecticut, and would be eligible for retirement within a few years.

The late Col. T.S. Woolsey had told me that when the bill was drawn in 1921 to transfer the State Forester to the Park Commission, he had felt it very important that the law should be so worded that the State Forester could attend all of its meetings, and it was so worded.

The executive meetings of the Commission had usually dealt with salaries of the personnel, and of course it had not seemed to me appropriate for me to attend so I had never raised a question about the law. Now that I realized that this meeting affected the whole future forestry policy of the State, I thought that I might have been helpful in saving the situation if I had been present.(P320) This was especially so because I understood that the criticism which had brought about the situation was entirely directed at Mr. Arthur Parker. Up to that time there had never been any criticism of my work on the part of any of the Commissioners although I had always been glad to have their advice on any matter of policy. I was even told that one of the Commissioners had suggested me for the administration job. I had often wondered why Mr. Parker had been so obstinate about such a little matter as park signs which had been repeatedly brought up at Commission meetings. However, I had considered the matter entirely Mr. Parker's funeral, but it turned out to be a double funeral. The fact that General Wadhams who had been both the salaried Director and the Chairman of the Water Board, made me feel that the State Forester should have been consulted in such an important policy question.

I realized when Professor Chapman and Mr. Filley first told me of the proposed position that the initiative which I had always enjoyed, both under the Experiment Station and under the Commission, would be transferred from the State Forester to this new appointee. There simply was not sufficient work to warrant the employment of another man at a salary higher than mine or Mr. Parker's. What was needed was a man who could make recommendations to the Commission concerning the transfer of certain areas in the state forests which had recreational

value, to the state park; and conversely, the transfer of certain large forest areas in the parks, to the state forests.

More than a dozen years previously, Mr. Turner had suggested the employment of a director for the Parks Department, and Mr. Henry Buck was mentioned for the job, but nothing ever came of it. It was not proposed at that time that he should have anything to do with the Forestry Department.

In the figure of speech which I have used as the heading of this Section, [The Four Horsemen], there is considerable question as to which of the Commissioners - George Waldo or Thomas Hewes - was the head "horseman." At some times it seemed to be one, at other times, the other. Suffice it that they worked together, at least at first, for they evidently both wanted to be Chairman of the Commission.(P321) Mr. Arthur Comley III was never anything but a rubber stamp for Waldo. The other commissioners - Arthur Peale and Julian H. Horton - were both well-meaning men but were nonentities, so far as having any ideas of their own. Mr. Peale's term was to end September 1, 1945, and he apparently thought his chances for re-appointment would be better if he went along with Waldo and Comley.

One factor which influenced Mr. Hewes in his dissatisfaction with the Connecticut parks was the fact that he and his wife had visited several of the national parks the previous summer. He had very naturally enjoyed the deluxe hotels and cottages where he stayed, the guided tours and camp fires, and the congenial company he met at these places. He came back quite discontented with the simple facilities of our parks and did not stop to analyze the difference between the superlative scenery of the national parks and the tamer but pretty scenery of Connecticut. Although there are camping facilities in the national parks adapted to people of small means, they have always catered with their luxurious hotels to a wealthier class which has leisure for long trips. It had always been obvious to Mr. Turner and Mr. Parker that the chief use of Connecticut parks would be [by] working people of limited means and short vacations, and that wealthy men like Mr. Hewes would prefer to go father a field. There was no question but that Mr. Parker had made excellent use of the small appropriations available to him.(P322) The pavilion at Rocky Neck is a splendid example of his accomplishment when Government funds were available to him.

Feeling as he did, and with little knowledge of Federal procedures, Mr. Hewes applied to the National Paris Service for a man suitable for the position he had in mind. Quite naturally, the Park Service recommended Mr. Donald Alexander who had been connected with the C.C.C, camps on the parks, and was left on their hands at the conclusion of the program. At a later date, Mr. Milton B. Drury, Director of the National Park Service, informed Senator Frederic C. Wolcott personally that they parted with Alexander without reluctance[26].

The Biennial Report of the Commission states: "*Another change is the appointment of an Administrative Director who is to act as executive officer for the Commission. The first occupant of this new position is Mr. Donald B. Alexander who was appointed January 1, 1943.*" Thus, the fourth horseman joined the ranks of the destroyers.

If there was any one thing that I prided myself on, it was my ability to size up men in personal interviews. In this way I had built up a large C.C.C. organization which, according to men in the U.S. Forest Service, was the best in the country. I must give Governor Cross credit for

[26] Memo concerning Alexander by H.H. Chapman, April 20, 1946

allowing me to do this for he never so much as suggested any appointment. Political interference had wrecked many State organizations. If it is suggested that I made a mistake in appointing Lathrop, I can only say that I had not had as much experience at that time, and even Lathrop had valuable redeeming qualities.

When I first met Mr. Alexander, I was much surprised for I saw at once that he did not have what I considered an open countenance.(P323). In other words, to put it politely, I would not have appointed him to be a camp superintendent. If Mr. Alexander had redeeming qualities he succeeded in concealing them during his brief stay in Connecticut. He was, I must admit, a plausible talker, and I suppose it was this quality which impressed Professor Chapman and Mr. Heermance. I was frankly astonished when they both assured me that Mr. Alexander was a high grade man and that I would have no trouble with him.

It was soon after this, early in January 1943, that I began to seriously consider retiring. I knew that I would have a small pension, and felt sure that with my other income I could live comfortably. The difference between my net income after taxes before and after retirement would be only about $1,000, and it definitely did not seem worthwhile to put up with indignities and loss of prestige for such a small sum. I realized at once that the Administrative Director would get the credit for anything good in both the Park and Forest Departments, while if anything went wrong in the Forestry Department the State Forester would get the blame. This prophecy has proved true even after the resignation of Alexander. Now, thirteen years after these events, the State Forester is kept so much in the background that a State Senator asked me if we still have a State Forester, and people frequently ask me who the present State Forester is.

When I first told Professor Chapman, who was Chairmen of the Commission, that I was seriously contemplating retirement, he reassured me and arranged a luncheon with Mr. Hewes at the Hartford Club. Here, both Chapman and Hewes were so friendly and reassuring that I did nothing at the time about retiring. This was a mistake as later events proved, but I knew that Professor Chapman was sincere, and had not at the time been disillusioned about Hewes.(P324)

Mr. Alexander considered himself a landscape architect, and I believe he had taken courses at the Massachusetts Agricultural College. Whether he graduated I never ascertained. He evidently did not have sufficient confidence or was too lazy to make landscape plans for the state parks as a real landscape man, Mr. Thomas Desmond, was soon engaged by the Commission to make such plans.

Nothing was done toward an exchange of lands between parks and forests which I had supposed was one of the main objectives in hiring Mr. Alexander. In fact, he spent little time in the field as that apparently did not appeal to him. He conceived of his job as a purely administrative one, and he seemed to spend most of his time in thinking up ways to make trouble.

Ever since the Merit System had been put into effect, I had had difficulty in securing efficient clerical help, particularly in view of the greatly increased work required by the Budget Bureau, the Personnel Director and the Purchasing Department. Ever since State Forester Spring inaugurated a bookkeeping system, Mr. Filley and I had tried to operate the State forests in a businesslike way and keep accurate accounts of the receipts and expenditures in connection with each forest. This, of course, did not seem important to the majority of the Commission which was interested only in the recreational use of the forests. Neither was it of interest to the State Finance Department. I found it increasingly difficult to keep this information in view of the ever

increasing amount of clerical work required by the Finance Department.

One clerk that we got through the Personnel Bureau, was quite efficient when sober, but had an unfortunate habit of taking protracted sprees so that we had to fire him. Mr. Stevens, who was Head Clerk at this time, soon saw the way the wind was blowing, and switched his loyalty to Mr. Alexander.(P325)

On April 7, 1943, Mr. Alexander gave me a copy of a memorandum which he submitted to the Commission upon the consolidation of the clerical and accounting affairs of the Commission.

There was a good deal of stilted and confusing language in this memorandum such as, "*It seems to me that several basic improvements can be realized, namely:*

"*a. Integration of less experienced personnel with those of greater experience will raise the general level of performance*
"*b. Elimination of needless operations and clarification of objectives will produce a more efficient and effective handling of the business*
"*c. Definitive psychological and inter-departmental relation values will be gained by such adjustments...*"

"*Based on many years of experience in matters of this kind, I shall have no hesitancy in accepting full responsibility*" etc....

I realized as did all employees of both the Parks and Forestry Departments, that integration of the accounting work of the two branches would be a good thing if it could be done by a competent man interested in both branches. If the Commission had consulted Mr. Parker and me and could have employed a capable man like Mr. Courtis Berry who had had charge of all our C.C.C. accounting, all of the objectives of the Finance Department could have been carried out without disrupting the two departments. This, however, was not the main objective of the Commission. While using the desires of the Finance Department as a smoke screen, the Commission was now chiefly interested in making the employees realize that it was the boss and that all employees were to take orders from them.

I have sometimes been accused of lacking tact. I am sure that the preamble of my reply of April 9 was most tactful:(P326)

"*My dear Mr. Alexander: You have asked me to comment on your argument for consolidating the accounts and records activities of the State Park and Forest Commission and the State Forestry Department. Our relations have been so pleasant, I am sure you will realize there is nothing personal in my comments. You have been given a job to do and it is your duty to do it, let the chips fall where they may.... I find it impossible to comment on this particular recommendation as apart from your fourth recommendation for rearrangement of office space, details unknown to me, your plans for consolidating the engineering work, and future consolidations which will doubtless occur to you. The theory of peaceful penetration is too well understood in these days to require comment.* "

"*Your arguments seem to boil down to the fact that the Finance Department wants it that way, although the Legislature has established Forestry as a separate unit....*"

"*There comes a time in the life of most men when they have to weigh the enjoyment of work together with its emoluments, against the allurements of independence and*

leisure. With an expectancy of life of perhaps a dozen or fifteen years, I find the scales tipping more and more in the latter direction. Yours with high personal esteem, A.F. Hawes."

Even at this time I had a friendly feeling for Waldo as I had always liked him. On April 12, 1943, I wrote to him in part as follows:

"*Dear George:...I suppose I ought to take everything lying down being a public servant, but after you have spent the best part of your life building up an organization you naturally hate to see it disintegrate. I tried to make it clear that I don't blame Alexander. So long as I stay here, I shall fight for the integrity of the Forestry Department, and when you fellows have had all you can stand, let me know and I will get out.*[(P327)] *You know I have never been able to call anyone a S.O.B. for fear that they might have some political connections. I hope to have a few years in which I can enjoy this privilege. Do you blame me? Sincerely yours, A.F. Hawes, State Forester.*"

It must have been either in April or May that I had my first round with the whole Commission in the pavilion at Kent Falls Park. I told the Commission that I realized that it had the power to fire me but that it did not have the right to tell me how to run my department. If they did not like the way I was running it, they should fire me. No criticism had been made nor was there any at this time.

I then read to them certain passages from the State laws: Section 2173 as amended by Public Acts 1921, Chapters 193 and 288, Public Acts 1923, Chapter 125, and Public Acts 1925, Chapter 29.

Section 2. "The State Park and Forest Commission shall appoint a technically trained forester during the pleasure of the Commission....."
"He shall have an office with said Commission, may attend all its meetings and shall be responsible to it for the performance of his duties....."

Section 3. "The state forester shall enforce the laws providing for the protection for forests, and discharge all duties relating to forestry under the provisions of the General Statutes. He may hire such field and office assistants as in the judgment of the State Park and Forest Commission may be necessary for the proper execution of his duties...."

Section 4. "The state forester may enter into cooperation with departments of the Federal Government for the promotion of forestry within the state....." [(P328)]

Section 2175. "The State Forester with the advice and consent of the Commission, may buy land in the State suitable for the growth of timber at a price not exceeding $8 an acre.....He may with the consent of the Commission and the approval of the Board of Finance and Control sell or exchange any land acquired for state forests..."

After reading these extracts from the laws and stating my position, Mr. Comley said that I could get a court opinion as to the meaning of the laws by taking some court action. I had followed many opinions of the Attorney Generals of the State, and noted that they almost always were on the side of the party in power. I had no desire to spend my hard earned savings to secure a court decision about a position that I was ready to give up. Mr. Comley never did get it through his head that I was trying to save forestry, and not to keep my job.

On May 21, 1943, I wrote to Commissioner Peale in part as follows:

"I now have definite proof that Mr. Alexander holds an administrative position over Mr. Parker and me, all statements to the contrary notwithstanding. You probably do not realize that the morale in both the Park and Forestry Departments is at an all-time low. It is unbelievable that a group of high grade and well-meaning men should be so indifferent to the feeling of loyalty which has existed since this Commission was established as to disregard an important matter like esprit de corps. I assure you that I have a high personal regard for you, but believe you have acted unwisely. Sincerely yours, A.F. Hawes, State Forester"

On June 2, 1943, the Commission held a meeting at the Sleeping Giant Park which I did not attend. At that meeting, Mr. Hewes extemporized several resolutions from notes. The purport of these resolutions was to subordinate the Superintendent of State Parks and State Forester to the Administrative Director.(P329) As I recall them, they provided that the Director was to make plans for the parks and forests, and with the State Forester was to prepare a statement of policy covering the new private forestry law recently passed by the Assembly.

Mr. Vader, Secretary of the meeting, was unable to get the wording of the Hewes resolutions but submitted his version to Hewes for correction. Thereupon, Hewes rewrote them, and when the minutes were sent out with the Hewes' version they contained material which was not in those originally submitted.

Another meeting of the Commission was held in the office on June 15 which I attended but from which Hewes was absent. I explained my position that I would not care to continue in the work if there were someone between me and the Commission, as the law held me directly accountable to the Commission. Approval of the minutes of the former meeting was postponed.

On June 15 I wrote Professor Chapman, as Chairman, the following letter of resignation. I believe that it was not mailed, but I carried it in my pocket to the meeting of July 8:

"On June 2, your Commission issued to me the first order that I have received in my long years of service for your Commission. Today, I have received a memorandum from your Executive Administrator, Mr. Alexander, himself a landscape architect to make plans for the development of the State forests. "

"I would respectfully call your attention to the statutes dating back as far as 1903, which clearly define the duties of the State Forester and include the administration of the State forests. Other statutes define the relationship of your Commission to the forestry work.(P330) *Your chief function in this connection is the employment of a State Forester. The recent General Assembly continued the practice of placing responsibilities directly on the State Forester. "*

"I believe you are exceeding your legal authority. As the legally constituted official responsible for the state forests, I cannot approve the employment of another landscape architect to make such plans for the forests. I take this position because the great majority of the people of the State prefer to keep the forests in their natural condition, and secondly, because I believe you already have employees amply able to make all plans needed without additional expense."

"I must, therefore, request you to permit me to retire at an early date. I should prefer to have it effective July 31 which would allow time for my vacation, and for the

Personnel Department to hold a promotional examination for my successor. ”

“You will recall that at the time of Mr. Alexander’s appointment last winter, you and other Commissioners assured me that there was no criticism of the Forestry Department.”

“In closing, Mr. Chairman, I wish to express my high personal regard for you. I hope very much that you will succeed in preventing the complete diversion of the state forests from the main purposes for which they were acquired. Yours very truly, Austin F. Hawes, State Forester.”

That the Commission had no serious interest in landscape plans for the state forests is clear from the fact that fourteen years have passed since this episode and no landscape plans have yet been made for the forests. This order was worked up by Alexander and Hewes. I do not know whether Hewes’ purpose was to bring about my resignation but have no doubt it was Alexander’s object.(P331)

By this time, Professor Chapman understood that I fully intended to resign if conditions were not improved, and did everything he could to make the Commissioners realize that I would resign if they continued to push Alexander between me and the Commission.

On July 8, the Commission met in Hartland to look over some proposed purchases. After the field inspection, the business meeting was held in the Museum in Peoples Forest. I believe all the commissioners were present. I explained in detail that I recognized the authority of the Commission to reorganize the work, but that I wished to make it clear I would not continue as State Forester if there were anyone between me and the Commission, I offered to present my written resignation which I drew from my pocket, but it was the consensus that the Commission did not want me to resign. On leaving the building, I hoped that the matter was settled. Even Hewes joined with the others in friendly expressions. Messrs. Comley and Waldo were appointed a committee to redraft the resolutions.

Mr. Comley rewrote the resolutions at his camp and courteously sent me a copy for suggestions. They provided that the plans would be prepared, in the first instance, by the Superintendent of Parks and the State Forester, and would be presented to the Administrative Director for approval. I suggested certain changes whereby in the case of plans for the state forests only matters pertaining to recreation would have to be approved by the Administrative Director as I could not acknowledge him as an authority on forestry matters. Mr. Comley kindly accepted my changes. I already had complete working plans for Mohawk, Housatonic and Natchaug State Forests. Such plans require about a year’s work and cost several hundred dollars for data. Plans such as Hewes requested are of no value except for their historical data.(P332) Many of the state forests were too incomplete to warrant plans, and it seemed particularly inappropriate to make elaborate plans just as the State was embarking on a big program of acquisition which would automatically require the revision of any such plans.

As already stated during the period 1942-44 over 13,000 acres were added to the state forests. Surveying at this time fell far behind but in subsequent periods the acquisition program has slowed down, and the surveying project has caught up so that nearly 90 per cent of the present area has been surveyed. However, type maps and timber estimates necessary for final plans are still inadequate.

I sent to the Commissioners a Statement of Policy covering the new private forestry law.

Since the General Assembly had placed the responsibility for this law upon the State Forester, I did not feel that it was any business of the Administrative Director. It was a difficult law to administer, particularly at that time because of the shortage of labor.

The next meeting of the Commission, August 11, was held in the Nye Holman State Forest in the grove back of the Eastern District headquarters. Mr. Comley's report regarding Plans was adopted. Mr. Alexander presented an extravagant request for State money for planning which, to my amazement, was adopted without any opposition. However, nothing was ever done about it.

When the Statement of Policy regarding the private forestry law was brought up, Mr. Hewes opposed consideration because it had not been approved by Alexander. Since the resolutions above discussed had provided that plans for the state forests were to be prepared by the State Forester, and Mr. Alexander was to be consulted only as to recreational features, I considered that Mr. Hewes' insistence on my routing these plans through Alexander was a violation of the understanding just reached in the Peoples Forest as to my relationship with the Commission, and decided then and there in the Nye Holman Forest that I would retire. I said nothing to the Chairman about it at the time as he was just going to a hospital for an operation.(P333)

I believe it was at this meeting in the Nye Holman Forest that Mr. Comley informed me that Connecticut was too small a state to practice forestry. The poor man was of too limited education to know about the wonderful little country of Switzerland which is great industrially and for its recreation. For ages it has practiced forestry intensively, and its leading natural resources today are scenery, timber and water power.

Before the next meeting, I notified the Commissioners by letter that I would retire at the end of the year. Later, at Mr. Waldo's request, I agreed to remain until January 31, he having kindly arranged to give me February and March as vacation with pay.

During the next few months, I spent much of my time in writing the superficial Plans which Hewes and Alexander were so insistent on, but which never amounted to anything. I felt that it would at least be worthwhile for me to write the history of the various forests since I knew more about it than anyone else.

The following Plans prepared by me were approved by Mr. Alexander: Algonquin, Nassahegon, Nepaug and Paugnut. A few words about each of these Plans may be in order:

Algonquin Forest Plan written in September 1943 and approved as to Recreational Features by Mr. Alexander, October 9, 1943:

> At the time the surveyed area was 1,447 acres all in Colebrook. Of this, 64 percent had been given to the State, all people that I knew except Mrs. Curtis and Mrs. Wallace who gave the Elijah Grant Hemlocks of 91.6 acres.(P334) These gifts brought the total cost of the forest down to $3,627 or $2.50 per acre.
>
> The region was part of the famed "Green Woods" so-called because of the preponderance of pine and hemlock.
>
> Under the C.C.C. 34.8 acres of open land had been planted, and 20 acres of these plantations had been weeded. Improvement cuttings had been made on 21 acres. The products which had been removed up to 1943 were 252 cords of wood and 36,600 board feet of logs.

I considered this forest Number 2 in point of safety from fire because of its distance from railroads and centers of population.

Under "Recreation" the Plan says: "*The donors' wishes should be respected, and no large recreational area should be developed during their lifetime.*" This did not allow Mr. Alexander much of a footing in this forest.

Nassahegon State Forest Plan was written in October 1943 and approved by Mr. Alexander October 19. This had been part of the Nepaug Forest until that was divided in 1942.

At the time the Plan was made, it consisted of 13 tracts amounting to 1,242 acres which were purchased for $33,571. This is one of the poorest of the state forests from the standpoint of soil, tree growth, or recreational possibilities. Its main value is as a protection to the springs which feed the fish hatchery, and it should be handled chiefly as a protection forest.

Something over 2,000 cords of wood had been removed during the 17 years since acquisition was started. Open and burned land which had been planted amounted to 95 acres. This had all been weeded and was in excellent condition in October 1943.(P335) The most interesting incident in this brief history was the destruction of a five-foot plantation of Scotch pine by mice (*Microtus pennsylvanicus* [meadow vole] and *Pitymys Pinetorum Scalopsoides* [now *Microtus pinetorum scalopsoides*, northern pine mouse]). The former works above ground and the latter underground. This information was inserted for the benefit of the Commission, which worked both above and below ground.

The Forestry Department had built 5.7 miles of road in the forest. It ranks with Nepaug as of high fire hazard.

There was little opportunity for recreation in this forest other than a couple of small picnic areas.

Nepaug State forest Plan was made in September 1943 and approved by Mr. Alexander October 9, 1943.

This forest of 1,065 acres is all in the Town of New Hartford. It was started in 1926 and contains 7 purchases which cost $7,385. It is in the vicinity of the Nepaug Dam which was built by the Hartford Water Board between 1912 and 1918.

The forest has a light soil and consequently a small stand of only 6.5 cords per acre. During the 17 years since acquisition, 1,095 cords had been cut. Of the total area, 128 acres had been planted to evergreens and most of it had been weeded. The white pine here is very free from weevil damage owing to the hardwood cover. Studies made six years after planting showed 90 percent of the white pine surviving, 61 percent of the red pine, and 64 percent of Scotch pine.

Five miles of woods roads were made by the C.C.C. in this forest.

The only feature in this forest of any recreational value is a 2-acre hemlock grove now accessible through one of the new roads. It is equipped with five

fireplaces, five tables and two latrines. The chief recreational use of this forest has been by horseback riders as there is a stable nearby. The blue trail of the Connecticut Forest and Park Association passes through this forest and is used by hikers. It passes the "tipping rock" of local fame.(P336)

Paugnut State Forest Plan made in August 1943 and approved by Mr. Alexander on August 25.

Since the first purchase on Burr Pond in 1929, eleven areas have been purchased amounting to 1,520 acres at a total cost of $31,357. Of this, $22,857.50 was spent by the Forest and Wild Life Commission and the balance by the Board of Fisheries and Game.

Burr Pond contains 85 acres and is the largest body of water entirely owned by the State. The dam which had been built by Mr. Titcomb had proved entirely inadequate even after our repairs in 1933. It was therefore entirely rebuilt by the C.C.C. in 1936 and has proved satisfactory. It was built with the expenditure of 4,081 man days without a single lost time accident. The materials including 2,500 bags of cement cost the Government $2,362.70. The main spillway is 45 feet long, and the second spillway, 95 feet long. The engineer estimated that 6,000 tons of material was handled including 785 cubic yards of earth, 346 yards of rock excavation, 457 yards of concrete, 341 yards of masonry, 1,245 yards of earth and rock fill, 665 yards of rip rap, and 3,910 pounds of steel.

Because of its nearness to Torrington and the good beach made by the C.C.C. this pond is a favorite recreational area and was used before the war by an average of 25,000 people a season.

As early as 1914, the previous owner, the Coe Brass Company, had planted several areas with white pine for the purpose of growing box lumber. The policy was later given up and the plantations were neglected so they were in deplorable condition when acquired by the State both from weevil damage and suppression by hardwoods. These plantations, amounting to 56 acres, were greatly improved by the C.C.C. only to be damaged again by the 1942 ice storm.(P337).

Since 1930, about 52 acres of old fields and burned land have been planted, making the total area of plantations 108 acres. During the period 1930-1943, about 2,868 cords of wood have been cut in the forest.

Following the advice of Mr. Albert Turner, a new approach road, 2,000 feet long, to the Pond was located on a nearly level grade and was cut out in 1942. Three bids for building this road had been received up to the time of writing. These bids varied from $3,176 to $5,700. There was much delay in building this road as the Budget Bureau advised me that it should be built by the Public Works Department. On August 5, 1942, I referred the matter to Commissioner Burke of that Department, assuming that the cost would not much, exceed $3,176. Nothing was heard from it until November 5 when we heard that the contract was let for $7,800. Inquiry on November 6 revealed that the contract had not been signed and that it would be re-advertised. On December 15, 1942, I notified the Park and Forest Commission that the Public Works Department had secured another bid for $3,990 and then applied to the Budget Bureau for the necessary allotment from our appropriation. Commissioner Waldo gave me to understand that

Governor Baldwin was sympathetic to the project but Mr. Collins of the Budget Bureau took the position that since our budget of two years previous made no mention of this road it would be an improper expenditure under our appropriation, and it was therefore disallowed.

In the meantime, a bill had been introduced in the 1943 General Assembly to appropriate $25,000 for this forest. At the hearing before the Appropriation Committee, I recommended $15,000 for this forest. The bill passed appropriated $10,000 to be expended for the improvement and maintenance of the recreational facilities at the Paugnut State Forest.(P338)

Unless the Budget Bureau took the position that a road is not a recreational facility, it was expected at the time of writing, that this road could be built. After a senseless delay of over a year, it finally was built.

The Plan for the use of the 1942 special appropriation stated that although this forest is considered Number 8 in point of safety from fire, we consider it Number 1 or Number 2 in point of damage by vandalism. Experience shows that it would be a waste of money to develop recreational facilities without a resident caretaker. It was, therefore, proposed to build a caretaker's cottage for $1,650. The cost of repair of the stone building was estimated at $350. The cost of building the road was estimated at $5,000 or 50 percent more than the estimate before the interference of the Budget Bureau. It was proposed to enlarge the beach and parking area at an estimated cost of $2,000. The total budget was as follows:

Construction of road	$5,000
Building cottage and repair of stone building	2,000
Extending beach and parking area	2,000
Part payment of caretaker, 2 years	1,000
Total	$10,000

Now that I had resigned, Mr. Alexander, in reviewing the Plan, did me the honor of writing:

> *"I have reviewed this whole Plan carefully and would like to say that it is in my opinion particularly well presented. It is comprehensive and appears to be quite complete, looking as it does a considerable distance into the future."*

The above four plans were the only ones approved by Mr. Alexander before my retirement. The Commission took no action on these.(P339) Professor Chapman in one of his memoranda says: *"Ten plans have been submitted to the Administrative Director, only five of which ever reached the Board which did not take action. The other five dating from November 12, 1943 to December 27, 1943 were still in the hands of the Administrative Director without action on July 19, 1944."*

I do not know whether Mr. Parker ever complied with this order to make plans for the parks. So far as I know, no pressure was placed upon Dr. Kienholz to complete the series of plans for the forests.

The whole farce was the method adopted by Hewes and Alexander to put me in my place or force me to resign.

Before resigning, I consulted ex-Dean Henry S. Graves in New Haven. He agreed with me

that if a professional man could not give loyal and hearty support to his employers, he could not continue to draw his salary and maintain his dignity and professional standards. I was influenced by this advice in asking for retirement. Mr. Parker took a different position and continued a few years longer, but never had respect for the Commission as it was then constituted.

A committee of the Commission - Chapman and Filley - met with Alexander, Parker, Vader and District Forester Winch, and me at the Foster tract, a bequest 13 miles northeast of Hartford, to decide on the classification of the property as park or forest and agreed to recommend its division, giving the Park Superintendent the old and new houses with surrounding grounds, and to the Forester the rest of the tract. Before examining the property, Mr. Alexander announced that in his opinion it should all be park, and later, without consulting me, wrote a memorandum to the Commission to this affect. The Chairman then requested me to present the facts as to the character of the woodland which had no recreational value. The matter had not been decided when I left.(P340)

At a meeting of the Commission on October 13, 1943 at the Gillette Castle (the annual meeting), I proposed to the Commission the appointment of Mr. Milton C. Stocking as forest Fire Technician, he having received the highest rating in a Civil Service examination. Mr. Hewes objected on the grounds that the matter had not been cleared through the Administrative Director. The appointment was approved because protection of the forests rated above administrative technicalities, Mr. Hewes voting "No".

As late as October 4, Mr. Waldo had written me proposing that the Commission give me a sabbatical year, and ended his letter thus:

> "*Frankly, Austin, I think the Commission can and should try to lay out a program that would conform with your personal wishes and make your job as agreeable as possible. And far from thinking that the State would suffer thereby, I think it would benefit by your chance to see other places, do other things and come back with some new vision to give to the rest of us. With best regards, I am, Sincerely yours, George C. Waldo.*"

About this time, the Commission raised my salary so that if I had remained my pension would have been considerably more. It was the old attitude of employer toward employee that money is everything. Pride and enjoyment of one's work meant nothing to men like Hewes. I felt that if he were not on the Commission, something might have been worked out, but he had proven again and again that his word could not be depended upon, so when Governor Baldwin called me to his office and urged me to stay I told him that I could not work with Mr. Hewes. Of course, I did not expect him to drop Hewes from the Commission although he could easily have done so as Hewes had lost his political prestige.(P341)

The "Four Horsemen" were now on the trot. At the annual meeting already referred to, an executive session was held in the evening during which Chapman and Filley spent four hours trying to iron out the problem with the remaining five commissioners. The only result was that they elected Waldo as Chairman since Chapman was not in sympathy with the policies of the majority. Chapman was more or less relieved as he felt that he could express himself more freely as a member than he had been able to as Chairman. As a matter of fact, he had always expected that Waldo would become Chairman because of his wider acquaintance in the State.

As already stated, Professor Chapman, from the first, had tried to see the best in Alexander,

and somewhat to my disgust had stressed his high qualities, but to use his own words,

> *"the Chairman's faith in the latter's (Alexander's) general attitude and methods had been destroyed in August 1943 by a procedure which took place with reference to the plan for development of Sherwood Island State Park, the details of which incident he reported in full to the Commission. About a month before the annual meeting of October 13, at Gillette Castle, Mr. Filley and the Chairman had a three-hour conference with Mr. Waldo at the Graduates Club in New Haven, at which they made clear their loss of faith in Mr. Alexander's ability to command the respect of his subordinates. Mr. Filley announced that he would resign his office of Treasurer. Mr. Waldo's only concern was that we should not resign from the Commission as it would look bad. Subsequent events showed that his faith in Alexander had remained unshaken despite all later incidents."*[(P342)]

The Sherwood Island incident referred to by Professor Chapman had to do with a plan for that park made by Mr. Desmond at Alexander's request. It was put up to the Commission and approved by it without either Mr. Parker or Mr. Vader having an opportunity to see it or being consulted in its preparation. Mr. Alexander pursued the same policy of ignoring Messrs. Parker and Vader in the preparation of plans for other parks. To quote Professor Chapman's memorandum of November 4, 1943:

> *"As planning is being carried on, a great deal of wasted time and effort occurs by having Mr. Desmond, who is unfamiliar with park history and conditions of use, complete a plan without the benefit of any consultation on the ground or in the office, the idea being that only in this way can his original ideas have free play."*

I presume that if the general public could have known the total cost of the Desmond plans to the State it would have aroused a criticism of the Commission that would have been hard to justify. However, what newspaper would care to question the Commission, especially after Mr. Waldo became Chairman?

To quote further from Professor Chapman's memorandum of November 4:

> *"The two indispensable traits required in a successful administrator, or executive director, if that is what he is to be, are ability to command the respect of his subordinates and their confidence in his judgment and motives. Mr. Alexander has, by his own treatment of certain matters alluded to, forfeited the respect and confidence of the former Chairman, Treasurer and executive personnel of both departments."*

Another cause of friction between Mr. Alexander and Mr. Parker was, to again quote Professor Chapman, that the former sent orders to Parker's subordinates without going through him.

> *"Mr. Parker told him that all orders to his subordinates must come through him. Mr. Alexander displayed great irritation and indignation. This incident occurred in connection with a visit arranged for certain Commissioners to the park at Dennis Hill on October 27."*[(P343)]

> *"Another practice instituted by this Administrative Director is the writing of numerous memoranda which are sent direct from his office to the field personnel in the parks and forests, thus creating the impression among them that Mr. Parker is*

being superseded as the actual head of the park administration, and the same for forestry."

In order to ascertain just how much the Finance Department had to do with the whole reorganization program, I consulted the chief men and wrote in part as follows to Professor Chapman on October 26:

"*In the presence of Commissioner Lowell, Mr. Weir told me that it was not their intention to have a head man over both departments but simply to consolidate the clerical work under a head clerk like Stevens. Mr. Scoboria says it was not his idea to have one man who would handle the correspondence for both branches, but that this was the wish of the Park and Forest Commission. It is pretty clear where all this started. The wishes of the Finance Department were quite different from having a Director who has bi-weekly staff meetings of both departments (latest development) and who gives orders direct[ly] to park employees over the Superintendent's head, and approves salaries, working plans, etc.*"

Mr. Weir was a high grade man and I never questioned his statement. Mr. Lowell was a purely political appointee of Governor Baldwin, who had had no experience to fit him for such a high salaried position, but was well-intentioned toward our work. While the original intention of the Finance Department is clear, it so happened that their agent who handled the work of the Park and Forest Commission, Mr. Ray Collins, was a man more or less like Alexander. They worked together at first, until Alexander discovered that Collins thought of himself something as an overload over the Park and Forest Commission, much as Alexander considered himself over Parks and Forests. I also suspect that Mr. Collins, who had worked with Lathrop on radio equipment, continued to consult with him.(P344) A proposed reorganization later presented by Collins indicated cooperation with Lathrop.

As indicated by this lengthy discussion, things were going from bad to worse, and I was anxious to get away from it all.

At Christmas time the employees of the Forestry Department gave me a farewell party in the Museum at the Peoples Forest where they presented me with a very nice gift and a testimonial signed by twenty-five of them, which expressed esteem and affection for me in the following terms:

"*Nationally known and respected; holder of the highest honor the Society of American Foresters can bestow; ardent champion of state forests and the place they hold in the economy of the State; forward looking molder of the policies of the Department, always with an eye to the human values involved: We have come to know him as a source of wisdom, a woodsman and lover of the beauty of the out-of-doors, a friend and counselor, and a man who by his example and leadership has been an inspiration to us all.*"

It was, of course, a rather sad occasion as most of these people had worked with me not as employees but as cooperators for many years, and I was very fond of them.

Professor Henry S. Graves wrote a very good letter to Governor Baldwin about the unfortunate forestry situation in the state. In expressing my appreciation for this letter, I wrote him on December 14th. In this letter is the following paragraph which expressed my feeling about the Forest and Park Associations:

"Needless to say, I feel that the Connecticut Forest and Park Association has failed in one of its main purposes, which I have always supposed was to back up the forestry department. I feel that Mr. Heermance is rather gullible and has been easily influenced by some of the Commissioners." (P345)

On January 15, 1944, I wrote a personal letter from my home to each of the directors of the Connecticut Forest and Park Association as follows:

"I have been advised that up to the time of your last directors' meeting you had not been informed of the serious situation which threatens the future of the forestry movement in the state. There was no excuse for this because your secretary had been acquainted with the entire situation for over a year. When I attended one of your meetings, I found that Mr. Alexander was present, thus making it impossible for me to give you information which your secretary should have given you. To summarize the situation briefly:"

"The Park and Forest Commission as now constituted, does not take the state laws literally. All the forestry laws of the state are built around the State Forester, as the position was created before the Park Commission. The Commission brings no charges against the State Forester but has turned over many of his responsibilities to an Administrative Director (Mr. Alexander) which is not a statutory position. The Commission excluded the State Forester from important meetings although the law gives him the right to attend. It had transferred employees from the State Forester to the Director. The whole attitude of the Commission leads me to believe that the majority of the Commission (excluding Chapman and Filley) has little or no interest in forestry, and intends to develop the state forest chiefly for recreational purposes. Various orders have been issued to me, apparently solely for the purpose of putting me in my place as an employee. Until 1943, this Commission had never given me an order."

"All of this has made the work so unpleasant I have applied for retirement. The whole morale of the department has been seriously affected, and I may add that the same is true of park employees. (P346) *Instead of having a fine, loyal group of men and women, which had characterized the employees of the two departments for over twenty years, the morale of the employees has been completely ruined."*

"The action of the Personnel Department in throwing the examination for my successor open to people outside the state, in spite of having at least fourteen good applications from foresters in the state, looked very strange to many people besides our employees."

"The appointment of Mr. Shepard to be Acting State Forester in my absence is the first act of the Commission to try to regain the good will of the employees. Distrust is so general; most employees will withhold final judgment until the new State Forester has been appointed."

"I have gone into the State situation at some length, simply to point out that it is entirely unnecessary and unjustified. If your Association had lived up to its standards and reputation of the past fifty years, it could have prevented the Commission from taking this unfortunate attitude."

"I am sorry to have to come to the conclusion that your Secretary does not represent the purposes for which your Association was organized, and which I believe you stand for. His conception of the Association as a research institute is very far from the kind of influential organization it has been under the leadership of men like Hawley, Woolsey, Buttrick, and Ross."

"In order to bring back the Association to its former influential position in the state forestry movement, it will be necessary for the Directors to assume leadership."

"I am very glad that Mr. Beach has agreed to be president because he is thoroughly acquainted with the situation and has demonstrated, on his own land, his interest in forestry." **(P347)**

"I would, therefore, like to make the following suggestions which I believe would be for the good of the Association:

1. *The Secretary of the Association should be an employee of the Directors and not an elected officer;*
2. *State officials, including the State Forester, should only attend occasional meetings, and then only as invited by vote of your Board for special reports. This would enable you to transact your business in executive sessions;*
3. *The Secretary should not attend meetings of the Nominating Committee as it puts him in an embarrassing light of trying to select the officers for his own benefit. In the past, I was frequently a member of the Nominating Committee, but never until this year has the Secretary taken part in its deliberations, so far as I know.*
4. *The Secretary should confine his efforts to programs which have been specifically approved by your Board. The prestige of your Association has been weakened by his frequent appearance at legislative hearings, and on other occasions dealing with matters outside his experience.*

"I regret having to make these recommendations in view of the good intentions which Mr. Heermance undoubtedly has. He seems to be overconfident and unwilling to consult men who could be very helpful in formulating better judgment. Respectfully submitted, Austin F. Hawes"

Under date of January 19, 1944, Mr. Christopher Gallup, President of the Association, wrote me in part as follows:

"Ever since I was first elected to the Board of Directors, I have hoped for an opportunity for discussing both the policies of our Association and the forestry policies of the State, but nobody else seemed to be interest in any such discussion, so it never took place."

"Enclosed, you will find the letter that Mr., Heermance wrote me under date of September 2, 1943, and a copy of the call for the Directors' meeting therein mentioned." **(P348)**

"Messrs. Chapman and Filley were both at the meeting, and when we came to item 10, I suggested to Mr. Chapman that he shoot the works. He turned to Mr. Filley with the suggestion that the less said the better, and Mr. Filley promptly agreed. Such being the case, I cannot see how Mr. Heermance can fairly be charged

with failing to inform the Directors of what was taking place. I at least thought that the other Directors should get their information direct from Mr. Chapman, rather than have any hearsay review by either Mr. Heermance or myself. Cordially yours, Christopher M. Gallup."

As a note, I may add that at this late data (February 1957) Professor Chapman does not remember the incident referred to.

Under date of January 21, 1944, Mr. Heermance commented on my broadside to the Directors. After pleasantries and apologies for his shortcomings not necessary to repeat, he said in part;

"*Our troubles go much deeper than Alexander or Tom Hewes. A majority of the present Commission wanted a more aggressive policy in regard to our state parks than was possible under Turner. At the same time, the Department of Finance and Control insisted on dealing with a single hand in all financial matters involving the Commission; hence, the appointment of an Administrative Director to serve as the Commission's business agent. How far the difficulties that have arisen have been due to Alexander and how far they have been due to the situation in which he finds himself, I am still reserving judgment…..I am convinced that the opening of the applications for State Forester to outsiders was due to a blunder by Scoboria's department and not to any crooked work. No one is trying to railroad anyone with the position. We could not ask for an abler or fairer panel of judges to sift our candidates.*[(P349)] *Our real fight is with the Department of Finance and Control, to make them confine their interference to matters concerning the way funds are handled and keep them from interfering in technical matters that are none of their business. Lathrop evidently has gotten the ear of Collins who has been trying to tell Stocking how to run the forest fire service. That is the kind of thing that must be watched and fought hard.....Very truly yours, Edgar Heermance, Secretary.*"

After this correspondence, Mr. Heermance was convinced that I lacked tact and that everything would be serene under my successor.

An example of how Governor Baldwin's policy was influenced by political expediency was his arbitrary action in withholding consent to spend another cent of the appropriation of $400,000 which we had secured for forest purchase, until after July first. Obviously, it could make no difference to the taxpayers whether it were spent in one fiscal period or another.

In a letter dated January 13, 1944 to Mr. Goodwin Beach, Professor Chapman says;

"*The spineless Board consisting of Chairman Waldo, Peale, Norton (Hawes absent) back him (the Governor) up; three members of the Fish and Game Board, sitting with us on the Wildlife Commission, kept still, and the Commission voted to accept, without a protest, the edict of the Governor as flatly stated to us by Finance Commissioner Lowell, who sat with us, and by his presence prevented candid discussion of the rank political expediency involved....The Fish and Game men - Barney, Sheane, and Doctor Flaherty are disgusted. I said all I could as Chairman and Filley protested vigorously but without effect. This situation is typical of what has been going on for over a year, and is the cause of Hawes' resignation.*"

Reference has already been made to the Civil Service examination to fill my position.[(P350)]

Prior to December 23, 1943, fourteen Connecticut applicants had filed applications with the Personnel Department. These were: C.B. Bidwell, A.J. Brooks, F.M. Callward, R.K. Daley, N.W. Hosley, A.W. Hurford, A.R. Kienholz, C.W. Martin, S.E. Parker, L.E. Pearson, W.F. Schreeder, W.C. Shepard, E.C. Stocking, and E.C. Winch. All of these, with the exception of Pearson, were members of the Society of American Foresters, and nine of them were Senior Members.

The State law clearly states that if there are not three qualified candidates for a position in the State, the Personnel Director may throw the examination open to people from other states. In spite of the fact that several of the candidates above listed were well qualified for the position, Scoboria threw it open to foresters outside the state, and three men came from distant points including Mr. Alfred Hastings from Washington.

In Professor Chapman's letter of January 13 to Mr. Beach above quoted, he continues:

> "*The second concern I have is Mr. Heermance. You heard what he said in an effort to justify or whitewash Hewes at your Board meeting. Much as I like him and appreciate his ability and services, I never can trust him when it comes to the attitude he is going to take on matters concerning the State Commission and State Policy....In this whole trouble he has been for a year anxious to find out all about it, but in the showdown his objective fitted perfectly with that of Waldo et al. that there was nothing to be done about it but to play along with them....He was responsible for throwing open the examination to state-wide (evidently intended for nationwide) rather than promotional basis.*"

The Examining Board appointed by the Personnel Department to give the examination for State Forester, was as follows: Professor R.C. Hawley of Yale; Mr. William Howard, State Forester of New York; Mr. John Foster, State Forester of New Hampshire; Mr. Christopher Gallup; Senator Walcott; Mr. Carl Sharpe, State Treasurer; and a Bridgeport industrialist whose name I do not know.**(P351)**

When Mr. Scoboria's office showed to this Board the organizational chart (of the Forestry Department) it was the unanimous reaction that the duties of the Administrative Director so overlapped and encroached on those of the State Forester, as fixed by law, that it would be difficult to secure the consent of any big man to serve under such conditions.

As Professor Chapman continues to Mr. Beach in the above letter:

> "*What is the Association for if not to tackle such situations in defense of public rights, not mere subservience to political expediency, and has the Board (of Directors) any authority over the acts and opinions of its Secretary? Is the fact that a seven-man committee, none of whom previously knew the facts, immediately understood the whole trouble with the set-up, of no significance; and must the Association play along because its Secretary independently exercising his intellectual judgment so decides and acts accordingly? If so, the usefulness of the Association is ended as far as the foresters are concerned, both within and without the State.*"

As a matter of fact, the Forest and Park Association had already lost the respect of many of the foresters of the State. Some of these have never rejoined the Association and are conspicuous by their absence from its meetings.

Dr. Kienholz, who edited the "Wooden Nutmeg" with the assistance of Miss O'Connell, brought out a special number of twenty pages in December 1943. This contained a very fine review of the forestry progress in the state from 1901 to 1944. It was called "The Twentieth Anniversary of the Wooden Nutmeg" and contained articles on the early days by Walter Mulford, Samuel Spring, Walter Filley and myself - the four State Foresters of the 43-year period(P352). There were also articles by H.H. Chapman, Chester W. Martin, W.F. Schreeder, Raymond Kienholz, William Shepard, S.E. Parker, J.B. Bishop, and E.C. Winch, all of Connecticut. From other states there were messages of good will to the Connecticut Forestry Department from: Harold C. Cook, Chief Forester of Massachusetts; Eric Jacobson, State Forest Fire Warden of Rhode Island; Perry H. Merrill, State Forester of Vermont; John H. Foster, State Forester of New Hampshire; Raymond E. Rendall, Forest Commissioner of Maine; and W.G. Howard, State Forester of New York. Several forestry associations also sent letters: Edgar Heermance, Secretary of the Connecticut Forest and Park Association; Harris A. Reynolds of the Massachusetts Forest and Park Association; Lawrence W. Rathbun, Forest of the Society for the Protection of New Hampshire Forests.

The magazine was nicely illustrated and printed on excellent paper. The cover page was that of the earliest Nutmegs designed by the late Al Bevans, long an enthusiastic fire warden of Fairfield County.

The Civil Service examination for my successor, already referred to, was held on February 3 and 4, 1944. The three highest ranking contestants were in this order: Dr. Kienholz, Mr. Floyd Callward, and Alfred B. Hastings. Dr. Kienholz was appointed. Suffice it to add that at no time was my advice requested as to my successor.

On the evening of February 3, 1944, through the efforts of Mr. Shepherd and other employees, I was tendered a very fine farewell dinner at the Hotel Bond, which was attended by eighty-five friends and forestry associates from Connecticut and nearby states. Professor Henry S. Graves kindly acted as toastmaster. While the speakers were somewhat too laudatory to be repeated, I give here a list of the speakers:(P353) Henry S. Graves, Phillip Buttrick, H.H. Chapman, Grover Conget, Harold Cook, R.M. Evans, W.O. Filley, John Foster, Mr. Herbert of Rhode Island, Dr. Hunter, Perry Merrill, Raymond E. Randall, Harris Reynolds, Dr. Shirley, Dr. William L. Slate, and Senator Frederic Walcott.

I also received on this occasion a very handsomely gotten up tribute from the American Forestry Association, and numerous letters from foresters all over the country including one from Chief Forester Lyle F. Watts in Washington.

The whole event naturally gave me a very pleasant feeling after the trying year I had been through. I tried to express this feeling in the opening remarks of my speech at the conclusion of the dinner in the following words:

> "*This wonderful demonstration of support of forestry and of personal friendship gives me a feeling that I have been lost for many months in a desolate, burned country covered with smoldering snags and a few rotten and crooked trees, and have suddenly emerged into a splendid stand of well-managed timber where all the trees are straight and sound. If I am rather inarticulate, it is because my eyes and lungs are still too full of the smoke of firefighting.*"

On the following day, I started on my vacation and a most enjoyable trip to Mexico, leaving

Mr. William Shepard as Acting Forester.

Strange to say, the serenity which the Commission and Mr. Heermance had anticipated upon my departure, did not arrive, and in fact never came until the Forestry Department was virtually a corpse.

Mr. Shepard soon found that he was Acting Forester only in name. By February 13 he reported to Professor Chapman that "*Scoboria called Alexander in regard to the deferment of Greene, one of the Rangers. I could give a dozen detailed reasons why this particular man should be deferred where Alexander could give only the general one that he was important.*" **(P354)**

According to Chapman, "*almost at once an incident occurred in which Mr. Alexander took out of his hands (Shepard's) an important technical procedure involving the approval and execution of a contract concerning a charcoal kiln, a subject he knew nothing about, which convinced Mr. Shepard that the latter was trying to usurp all the authority he could.*"

On April 10, 1944, when he had completed his term as Acting Forester, Mr. Shepard wrote to Mr. Waldo in part as follows:

> "*On the surface, nothing controversial has arisen. However, there are two things I highly resented. First, there was occasion for me to send out instructions to the fire wardens in regard to fire matters. It happened one of the envelopes was torn in the machine in the mailing room and returned to the administrative director's office where it was opened. The Administrative Director upon seeing what it was, obtained from Miss O'Connell additional copies and sent one to Mr. Collins of the Budget Division with comments as to its quality. While these happened to be favorable, I resented his passing on the quality of my work. This was purely an administrative matter within the Forestry Department, and nothing which directly concerned the Administrative Director, or Mr. Collins. The second item was that on a trip to look over the Quinebaug fire equipment before its purchase, Mr. Collins indicated his interest and knowledge of radio equipment. An advertising circular on radio came to the office. This I sent to Mr. Collins with a request for information as to whether it was anything in which we should be interested. The reply came back addressed to Mr. Alexander (and initialed by him) to my attention. In other words, it had to be passed on by Mr. Alexander before I could see it. This, to me was a slap in the face. It was purely an informational matter of a technical nature for which there was no occasion to pass through Mr. Alexander's office.*"**(P355)**
>
> "*When the specifications for building the Tunxis charcoal kiln were formulated, three copies in its final form were sent by Mr. Barlow to Mr. Alexander who approved one and returned it to Mr. Barlow's office. Neither Mr. Hawes nor I who was handling the details, saw it until I went to Mr. Barlow's office to get a copy on being told by one of our district foresters he had seen the advertisement to bid in the paper. The preparation of these specifications and the final O.K. was certainly a technical matter and should have been referred directly to the State Forester for action. He was not even advised of the date of opening of the bids. It is irritations of this nature which were at the foundation of Mr. Hawes' retirement.*"
>
> "*The impression is created among the other state departments that Mr.,*

Alexander is the Director of the Forestry Department as indicated by communications so addressed. This is also indicated by such instances as the insistence of Mr. Edwards of the Development Commission that Mr. Alexander attend a luncheon under its auspices in connection with the discussion of the installation of a wood distillation plant by out-of-state interests, a discussion in which he took practically no part."

"*By the work of Mr. Hawes over a long period of years, the prestige and dignity of the Connecticut State Forester's position was built up throughout the State and in the forestry profession over the country, a prestige which I have full confidence Dr. Kienholz could uphold if given full opportunity. Because of the setting up of the present organization, the State Forester is thrown into the background by a newcomer who has yet to prove his real worth. If this is not so, why does the Governor send to him the invitation to attend a Wild Life Federation meeting when one of the main topics of discussion is Forest and Soil Conservation and nothing in the nature of recreation as it is known in this state.*"**(P356)**

"*The men who represent the state or its departments should be the technical men in their field and the ones which are actually responsible for the work. They are in the best position to both contribute and benefit from meetings. Attendance is a stimulus to better work as well as a regard, for a job well done. Under the present set-up these conditions do not work out. Yours very truly, William C. Shepard. April 10, 1944.*"

A copy of this letter was in a folder in Mr. Kienholz's desk. During Kienholz's absence, Mr. Stevens is reported to have gone through this desk. Next day Mr. Stevens quoted part of the contents of this letter to Mr. Vader. Later, Mr. Waldo informed Mr. Vader that he had looked into the matter Mr. Shepard had written him about and there was nothing in it.

The incident about Mr. Alexander's assignment to represent the State Park and Forest Commission at the National Wildlife Conference at Chicago is as follows: This subject lay, technically, in the field of the Board of Fisheries and Game, but on this occasion an important part of the program dealt with forestry. The conference, officially, was held by and under the auspices of the American Wildlife Institute, a private organization. The American Wildlife Federation holds its annual meeting in connection with the conference, and the official delegates from each state are appointed by the State Wildlife Federations. The writer has for several years been president of the Connecticut Wildlife Federation and is also President of the Connecticut Commission on Forests and Wildlife. The state association had appointed Dr. Russell T. Hunter as the accredited delegate to the conference. The State Park and Forest Commission had never before been represented, not deeming it in their province.**(P357)**

Acting on a letter to the Governor from a conference official asking the state to send a delegate, Chairman Waldo, without consulting the Federation, the Board of Fisheries and Game, or the Wildlife Commission, appointed Mr. Alexander to represent the state at this conference. When the matter was explained to him he also authorized the State Forester to attend. The state thus paid the expenses of three men to Chicago, The matter never came before the Commission.

When I saw Mr. Kienholz at the Board meeting on June 14, 1944, he mentioned to me that he could not understand why notice of his appointment as State Forester had not been sent to the officials of other states, etc. On examining copies of correspondence with W.C. Shepard, Acting

State Forester, I found that on April 14, 1944, he had written Chairman Waldo as follows:

> "*Dear Mr. Waldo: Several times I have heard Dr. Kienholz express regret that no formal announcement has been made to the forestry departments of other states and Federal agencies, such as the U.S. Forest Service and Soil Conservation Service, of his appointment as State Forester. He has many official and semi-official relations with them, and it would be desirable on this account that they be officially notified. Also, in fairness to the State Forester and so that he may perform his duties effectively and without embarrassment, a notice should be sent to all State departments and commissions that the Administrative Director has no authority over the State Forester but only acts as intermediary between the department and the budget, personnel, and purchasing departments. Yours very truly, William C. Shepard.*"(P358)

On April 28, Mr. Shepard writes

> "*Dear Mr. Waldo: Enclosed, herewith, is a recent list of the State Foresters, compiled by the U.S. Forest Service officials who should receive official notices of Dr. Kienholz's appointment, the officers of the Society of American Foresters, and a list of scientific societies.*"
>
> "*In regard to our state departments and commissions, it is not that they do not know that Dr. Kienholz has been appointed State Forester, but that the impression has been allowed to become prevalent that Mr. Alexander directs the Forestry Department. This is contrary to the tenure of the 'definition of duties' agreed upon and accepted by the Commission. I have already cited the insistence of Mr. Edwards that Mr. Alexander be invited to attend the luncheon recently held at the Bond which was arranged through Mr. Heermance. Enclosed is correspondence also indicating this. I have mentioned the matters in connection with the charcoal kiln contract. Mr. McElroy of Mr. Barlow's office informed me that they understood he was in complete charge.*"
>
> "*In regard to the last paragraph of your letter, I have received the impression that Mr. Alexander prides himself on having tact, or at least knowing how to handle people. Whether or not the lack of tact was 'real or alleged' the facts are as I stated them. It appears to me that the patience and tolerance is required mostly on the side of the State Forester. Yours very truly, William C. Shepard.*"

In an interview which Mr. Shepard had with Mr. Waldo, the latter as Chairman of the Commission stated that his only interest in forests was for their beauty. He evidently had the same feeling as Mr. Comely that they were of no economic value.

It is indeed strange that in the brief thirteen years that have rolled around since the above events, so tediously described, that so many of the actors in this little drama have died. To them it is no longer of interest.(P359) In a few more brief years it will have no personal interest for anyone, and is only recorded that those who come after us may know how forestry was subordinated from an important branch of the State Government through the efforts of a few headstrong men.

Those who have died are: Mr. Gallup, Mr. Heermance, and Mrs. Kellogg of the Forest and Park Association; Professor Graves, Senator Walcott, Arthur Parker, and George Waldo. Others

mentioned who have died are former State Forester Mulford and Spring; former Secretaries of the Association, Buttrick and Ross; and of those at the banquet, Howard, Foster, and Conzet.