

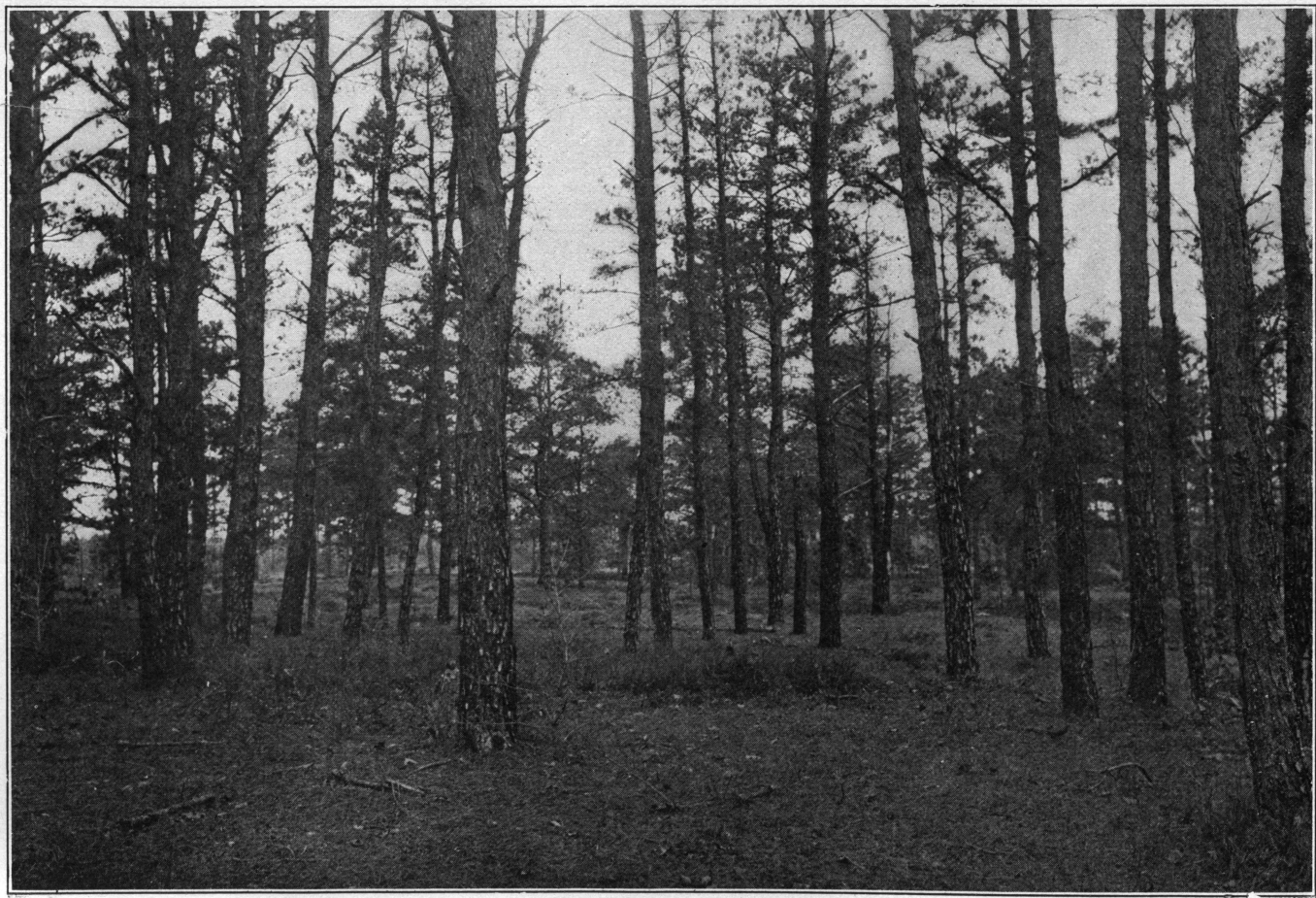
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SECOND ANNUAL REPORT

OF THE

FOREST PARK RESERVATION COMMISSION

OF

NEW JERSEY

FOR THE YEAR ENDING OCTOBER 31ST

1906

TRENTON, N. J.
MacCrellish & Quigley, State Printers.
1907.

Forest Park Reservation Commission.*

Hon. EDWARD C. STOKES, GOVERNOR, *Ex-officio President.*

HENRY B. KÜMMEL, *Executive Officer.*

JOHN C. SMOCK, Trenton, N. J.

EDWARD B. VOORHEES, New Brunswick, N. J.

WILLIAM H. CHEW, *Secretary*, Camden, N. J.

* Elmer H. Smith, Salem, N. J., was appointed April 11th, 1907, to fill the vacancy on the Board.

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Good oak sprouts on Bass River Reserve.

Letter of Transmittal.

*To His Excellency Edward C. Stokes, Governor of the State of
New Jersey and Ex-officio President of the State Board
of Forest Park Reservation Commissioners:*

SIR—I have the honor to submit the annual report of the Forest
Park Reservation Commissioners for the year ending October
31st, 1906, as required by law.

Respectfully submitted,

HENRY B. KÜMMEL,
Executive Officer.

WILLIAM H. CHEW,
Secretary.



PLATE II. Badly treated Forest of Oak Sprouts on Mays Landing Reserve.

Administrative Report.

The year covered by this report has marked an advance in forestry in New Jersey which is encouraging. While the Commission has proceeded along lines which have been necessarily conservative, it has, we believe, awakened a very live interest in forest preservation from one end of the State to the other.

So far as the purchases of land for forestry purposes are concerned, it may seem that little progress has been made, but it must be borne in mind that the Legislative appropriations have not been sufficiently large to enable the Commission to acquire large tracts. At the beginning of the last fiscal year (November 1, 1905) the State Forest Park Reservation Commission had purchased, or acquired by gift, a total of 970.59 acres of woodland. Of this area 373.59 acres were located in Weymouth township, Atlantic county, and 597 acres in Bass River township, Burlington county. During the fiscal year ending October 31, 1906, the Commission has purchased for the State an additional tract of 1,100 acres adjoining, or in close proximity, to the Bass River tract, and has entered into contracts for the purchase of about 500 acres in Blairstown township, Warren county. The forest holdings of the State, therefore, at the present time make a total of approximately 2,600 acres. The price per acre paid for this land has varied according to its location and to the quality and quantity of timber on the tracts, but in every case have the prices been reasonable.

The timber on the tracts in the southern part of the State is principally pine and oak, with some cedar swamp and good brush land. In the northern section the tracts are at the foot of the Kittatinny or Blue mountains and the timber is chiefly hardwood of good growth and fine promise. The Bass river tract or Tuckerton reserve being the largest yet acquired by the

State is now in charge of Samuel Budd Allen, who has been employed by the Commission as caretaker.

The Commission, in its last report, recommended the purchase of a large and well-wooded tract in Atlantic county. This piece contained 24,749.52 acres and was offered to the State together with a splendid water power for \$125,000, or at about five dollars per acre. This tract was carefully examined and pronounced to be admirably adapted for the practice of forestry. Moreover, it was located in an accessible locality and could be rather easily protected from fire. The Commission, therefore, made an earnest effort to get an appropriation for its purchase from the Legislature, but in this it was unsuccessful. Several causes contributed to the defeat of the appropriation, but the most important one, perhaps, was the local opposition of the residents in the vicinity of the proposed reservation. These people, who were taxpayers, made a point that all land purchased by the State under the law (Chapter 47, Laws of 1905) would thereafter be exempt from taxation, and as the land proposed to be taken in this instance comprised about one-third the area of one township it would mean a loss to them of eleven per cent. in their taxes. The Commission recognized this to be a valid objection in cases where large purchases are contemplated, and recommends that some legislative remedy be afforded in the matter that the same objection may not arise in the future to defeat other proposed purchases.

DEMONSTRATION FORESTS.

The Legislature at the session of 1906 passed a supplement to Chapter 47, Laws of 1905 (This supplement is Chapter 25, Laws of 1906), which empowered the Commission to enter into contracts with the governing body of any municipality or with any individual or body corporate owning lands suitable for forests, for the control and management of such lands for forestry purposes, or for the establishment of an arboretum or for experiments in forest culture. Under this act the Com-

mission can, when requested, direct the management of woodland owned by private parties. Although no such contract has as yet been entered into, it is but reasonable to expect that sooner or later the Commission will be asked to take up this work, and the result will be practically the establishment of demonstration forests at many places throughout the State.

THE NEED OF A FORESTER.

The Commission during the spring and summer months received offers of land in various parts of the State, and many tracts were personally visited by the executive officer. Some of the tracts investigated, however, seemed to require the opinion of a trained forester as to their availability for the purposes of forestry. The Commission has felt for some time that its work was approaching the point where technical knowledge of forestry was necessary, and this only emphasized that need. At the beginning of the year the Commission decided to employ from time to time a consulting forester, but such an arrangement did not prove satisfactory, for it was found that a competent man not regularly employed was difficult to obtain at the time when he was most wanted. The Commission should have a trained forester continually in its employ, for such a man could render the State most valuable service in advancing its forest interests. The United States Forest Service is training men in the work and would, no doubt, allow one of its experts to come to New Jersey to give advice and make working plans, provided the State pay his salary. The calls upon a forester in New Jersey would be many, for he could not only outline the proper policy to be pursued on the reserves we already have, but he could investigate proposed purchases, and also give valuable advice to private citizens who might wish to undertake forestry on their own account. There has also been a marked increase in public sentiment favorable to forestry in New Jersey, and many have been the requests for talks or lectures on this interesting subject before various societies. A forester with his varied experience could, no doubt, take this

work up also, and, while instructing, could greatly aid in promoting interest that is everywhere manifesting itself on the forestry question. The need, therefore, of a forester seems to be pressing, and the Commission feels justified in asking for additional funds to provide for such an official.

ENLARGING THE COMMISSION'S POWERS.

The growth in interest in the subject of forestry has been noted with much gratification by the members of the Commission. As a natural result more questions have from time to time pressed for attention. The Commission being charged by the act under which it was created with the conservation of the forests around the headwaters and on the watersheds of the State, has had its attention directed to some of the natural reservoirs of New Jersey—the lakes. Another State commission, dealing with the potable waters, has decided to recommend the purchase of some of these lakes or ponds by the State, and that if such a purchase be authorized, the control of such bodies of water should be placed in the hands of this Commission to be managed in connection with the forest reservations. By acquiring these lakes and portions of the forest that surround them, the State would be providing its citizens for all time with beautiful and healthful recreation places and be also conserving in a measure the sources of many important water supplies.

PRIVATE WORK IN FORESTRY.

There are many instances of private work in forestry in New Jersey. There are a number of young plantations showing great promise that have been started by interested citizens in several parts of the State. Few nurseries have been established, but Professor John C. Smock has purchased thirty acres adjoining the College farm at New Brunswick upon which it is his purpose to inaugurate a series of experiments in forestry. He has had shipped from Germany a large number of

trees which will be planted on this plot that the students at the State Agricultural College and the people of the State at large may be benefited by the lessons. These trees will probably be set out in the spring under the direction of the State Forester, should such an official be available at that time.

From the standpoint of the State a private forest wisely managed is just as valuable as one that the people own. It produces wealth in the same way, it guards the waters that fall upon it; in many cases it may even be used by the public under reasonable restrictions. Furthermore, it is practically impossible for the State of New Jersey to acquire more than a fraction of the two million acres of woodland that lie within its borders.

The Forest Commission, therefore, proposes to encourage private forestry at the same time that it is acquiring and administering the State reserves. And it wants to make forest owning and the practice of forestry as attractive to small holders as to large. It will do this through the security that the forest fire law affords, and, as soon as it shall have the means, by offering to aid owners in the management of their property. A farmer's woodlot is as important to him, and quite as well worth taking care of, as a large estate. Every piece of woodland that is cared for and properly used is virtually an addition to the State reserve, no matter who owns it.

THE FOREST FIRE SERVICE.

It can be said that the most important work accomplished by the Commission during the year has been the inauguration of the Forest Fire Service. The Commission prepared a bill providing for the appointment of fire wardens and the prevention of forest fires, and presented it to the Legislature. This measure was copied in large part from the forest fire acts which have proven successful in other States. It passed the Legislature and became a law by the approval of the Governor, April 18, 1906, (Chapter 123, Laws of 1906). The law did not go into effect, however, until July 4 last, at which time the Com-

mission appointed Theophilus P. Price, of Ocean county, State Fire Warden, and began at once the organization of the fire service throughout the wooded parts of the State. As a beginning the Commission decided to apply the law only to those townships having a compact wooded area of 4,000 or more acres. The Township Committees in eighty-one townships throughout the State were therefore instructed to appoint fire wardens. These townships are located as follows: Atlantic county, six; Bergen county, three; Burlington county, eleven; Camden county, four; Cape May county, three; Cumberland county, seven; Gloucester county, two; Middlesex county, five; Monmouth county, four; Morris county, six; Ocean county, thirteen; Passaic county, two; Salem county, three; Sussex county, six; Warren county, five.

During the summer when fires in the woods are not usually prevalent the fire wardens were instructed in their duties and furnished with shovels, etc., for the fighting of fires. Fire warning notices printed on muslin and containing extracts from the law were posted throughout the woods of the State, and the aid of the newspapers invoked to give wide publicity to the fire law. In addition to this the Commission had the fire law printed in small pamphlet form, to which was added an appeal to the citizens of the State, and these pamphlets were distributed widely throughout the State. The effect of this was to bring the law directly to the notice of the people, and there is gratifying evidence that much good will accrue to the State as the result of it. During the past fall (up to November 1, 1906,) there were fewer fires in the woods than usual, many small ones being put out by the fire wardens without any loss whatever. These fires, if unattended as they had been in the past, would have destroyed, or at least endangered, some very valuable timber property. The fire wardens rendered no bills for services in these incipient fires and reported only three of them. The entire cost of actual fire-fighting from July 4 to November 1 was \$5.30, one-half of which was paid from the State treasury and the other half by the township of Shamong, Burlington county, in which the fire occurred.

The total cost of fire warden service for the first four months was \$1,154.60. Of this, however, \$324.08 was paid for permanent equipment, making \$830.52 the actual cost of administration. If this sum seems out of proportion to the amount spent for extinguishing fires it must be remembered that the service is expected to *prevent* fires even more than it is to fight them. In other words, the fire warden service is most effective when no fire occurs.

That the service was effective may easily be shown by comparing the record for the same four months, July, August, September, October, for several years preceding its establishment.

The forest fires reported from July 4th to October 31st during four years last passed, were as follows:

<i>Year.</i>	<i>Number of Fires.</i>	<i>Value of Property Destroyed.</i>
1902,	12	\$3,267
1903,	4	1,277
1904,	26	53,371
1905,	no reports	
1906,	3	none

It should be observed that this table includes only the fires that occurred in the late summer and fall of each year. For the whole year 1904 there were 81 fires reported. It is doubtless true that there were relatively few fires in the fall of 1906, because the season was wet, yet the fire warden service is entitled to the credit of putting out a number of fires before they did any damage. Under the old conditions some of them would have been practically sure to reach destructive proportions.

It is probable also that many fires occurred of which the Forest Commission has no knowledge. There is no intention of claiming a practical immunity from forest fires in consequence of the inauguration of the fire warden service. It will be long before that point is reached.

The State Fire Warden has visited the greater part of the State and reports the fire wardens to be, as a rule, efficient men for the duty expected of them. The real test of the efficiency of the law will of course come next spring, since at that

season the fiercest fires usually occur. But by that time the Commission hopes to have the fire wardens so well prepared for their duties that they may be reasonably expected to give a good account of themselves.

SOME CHANGES IN THE FIRE LAW RECOMMENDED.

While the fire law has only been in operation a short time, yet it has been in force long enough to show that in some minor ways it could be changed to render it more effective. For instance the requirement of permits when burning brush, etc., should be extended so that it would be effective the entire year instead of from March 10 to May 31. People are inclined to be forgetful of such a closed season and when a man can fire his brush heap in October or November without a permit he is apt to do it in April or May without remembering that a permit is then necessary. Although we have not had any experience in the matter, other States declare it to be absolutely necessary to prohibit all fires near timber land until the men proposing to set such fires have first obtained permits from the township or district fire wardens.

The fire law as it stands to-day, can only be applied to townships, whereas there are in the State, under city, town or borough governments, certain localities which are heavily wooded but which cannot take advantage of a law which applies to townships alone. Legislation should at once be enacted, therefore, that will extend the provisions of the law to these municipalities.

An encouraging feature in connection with the fire law has been the desire manifested by the railroads of the State to co-operate with the Commission in making it effective. One large company traversing the "Pines belt" has expressed a desire to have its section foremen made district fire wardens, to serve without cost to the State or any of the townships, in order that fires starting near its right-of-way may be promptly fought and extinguished. The law should be amended to permit of such appointments.



PLATE III. A portion of Mays Landing Reserve, badly burned several years ago.

With these minor changes made by the Legislature the Commission has reason to feel that the forest fire service will amply justify itself and prove to the people of the State its value as a factor in protecting our timber lands from an agency that is more destructive than the axe.

WILLIAM H. CHEW,
Secretary.

Report of the State Fire Warden.

To the Forest Park Reservation Commission:

GENTLEMEN—I have the honor to submit the following report, covering the period from the Fourth of July, when the statute creating the Forest Fire Service took effect, until the thirty-first of October, when the official year closed.

This brief period has been scarcely sufficient to enable all the townships to comply with the request of the Commission and appoint Township Wardens as the law provides, but the progress has been highly satisfactory. Considering the inevitable delays attending joint action of this sort between the State and the local authorities, it is assuring to know that, previous to the first day of November, sixty-four townships out of the eighty-one, which were directed to appoint wardens had complied with the request of the Commission. The others continue to make appointments as fast as they can be visited and the purpose of the law explained clearly to them. The law is also winning its way in popular regard, and active opposition is much less common than it was for a time. The Township Wardens are now appointing District Wardens.

Owing chiefly to the frequent rains of last summer, only three fires were reported by the wardens, and those were speedily subdued. One in Shamong township, Burlington county, July 26th, burned four acres. Another in Gloucester township, Camden county, October 14th, burned one acre. The third in Berkley township, Ocean county, October 29th, burned one acre or less. The first was set by a locomotive, the second, probably, by a passer-by along a public road, and the third by a defective flue in a house which burned down. The promptness with which these fires were extinguished is most gratifying. The fire in Camden county endangered two planted groves of Spanish chest-

nut trees, said to be three hundred acres in extent, the harvest from which commands a high price. Prompt action in this instance was peculiarly valuable to the owners.

In the matter of equipment for fighting forest fires a beginning has been made. The State has a varied surface, and the fire fighter faces widely differing conditions. For the southern section with its loose sands the Commission bought a supply of shovels. The method of fighting fires with sand or earth has often high efficiency, but in the northern mountains other means have to be employed. The Commission will have to study this problem and provide the most efficient equipment for each locality.

The work of controlling disastrous forest fires has two distinct lines of activity. The effort should always be to prevent fires from starting, or at least to keep them from getting a hold on the forest. This is best accomplished by making the districts small, and posting the men separately throughout the region. The extinguishment of fires already burning is more economically done by making the organization and equipment very complete and the districts large. The principle of precaution is distribution of the force. The principle of extinguishment is concentration—strong units, though few. The appointment of Township Wardens, and, where a township has more than eight thousand acres of forest, the appointment of District Wardens, follows the former principle. The plan set forth by Mr. Gifford Pinchot, now United States Forester, when formerly employed by our State, and to be found in the Annual Report of the State Geologist for 1898, follows the latter principle. Both principles are sound, and a wise policy will combine them.

Attention must be directed again to the injury that our forests suffer at the hands of smokers and holiday makers. In the fall the majority of forest fires are set by city people who go to the woods to hunt or simply to enjoy themselves. They have little knowledge of the forest and no sense of responsibility. They carelessly throw matches or cigar ends in the dry leaves, or leave their coffee fires burning, without thought of the consequences. The deciduous forests of the northern counties are

the greatest sufferers from this practice, though the evil is common everywhere. How this class of forest destroyers is to be controlled is a difficult problem. The solution will probably be found only in the slow process of education, since, where so many people are about, an offender is practically safe from arrest unless he is caught in the act. Village improvement societies and social clubs in the cities can do more good work for forestry by taking up this question than in any other way.

THEOPHILUS P. PRICE,
State Fire Warden.

List of Fire Wardens.¹

ATLANTIC COUNTY.

Buena Vista Township—

Township Warden, JONATHAN H. SMITH, Richland.

District Wardens, RICHARD E. BENSON, Newtonville.
AMBROSE VANNEMAN, Buena.

Egg Harbor Township—

Township Warden, ABEL W. SMITH, Scullville.

District Wardens, CHAS. H. STEELMAN, Steelmanville.
JOS. HICKMAN, May's Landing, R. F. D.
WM. WALKER, Idlewood.
HARRY STORK, Pleasantville.

Galloway Township—

Township Warden, HARRY H. HOLZER, Pomerania.

Deputy Warden, EDWARD ERTLE.

District Wardens, Oceanville District, BODINE SOMERS.
Chestnut Neck District, WILLIAM KREBS.
Germania District, FRED THOMS.

Hamilton Township—

Township Warden, JOHN P. TAYLOR, SR., Mays Landing.

Mullica Township—

Township Warden, JOHN MICK, Elwood.

District Warden, JOSEPH ALBOR, Pleasant Mills.

Weymouth Township—

Township Warden, THOMAS CAMPBELL, Tuckahoe.

District Wardens, Dorothy District, JOSEPH FLANAGAN.
Risley District, HARRY SMALLWOOD.
Head of the River District, GEORGE SHAW.
Estellville District,, JOSEPH SMITH.

BERGEN COUNTY.

Franklin Township—

Township Warden, ALBERT LOZIER, Midland Park.

¹ The names of some wardens appointed after the close of the year have been added, so as to make this list as complete as possible.

Harrington Township—

Township Warden, EMIL KOBER, Northvale.

Hohokus Township—

Township Warden, JACOB A. VAN WAGENEN, Ramseys.

BURLINGTON COUNTY.

Bass River Township—

Township Warden, SAMUEL BUDD ALLEN, New Gretna,

District Wardens, FRANK HEADLEY, New Gretna.

JOHN BOWERS, Chatsworth.

FRANCIS PETERSON, Jenkins.

Evesham Township—

Township Warden, NATHANIEL N. LIPPINCOTT, Marlton.

Medford Township—

Township Warden, GEORGE F. PEACOCK, Medford.

New Hanover Township—

Township Warden, L. M. CRAMMER, Cookstown.

Pemberton Township—

Township Warden, WILLIAM H. REEVES, New Lisbon.

District Wardens, East District, IVINS HORNER, Browns Mills.

West District, VICTOR BURSH, Pemberton.

Shamong Township—

Township Warden, JOHN MILLER, Indian Mills.

Southampton Township—

Township Warden, ORLANDO B. MOORE, Vincentown.

Tabernacle Township—

Township Warden, ALBERT F. BOWKER, Vincentown.

Washington Township—

Township Warden, ALBERT SOOY, Greenbank.

District Wardens, ALONZO NORTON, Batsto.

MARK ALLOWAY, Chatsworth.

Woodland Township—

Township Warden, VICTOR RITZENDOLLAR, Chatsworth.

CAMDEN COUNTY.

Gloucester Township—

Township Warden, HARRY NORCROSS, Clementon.



PLATE IV. Good Oak Sprouts on Bass River Reserve.

Voorhees Township—

Township Warden, GEORGE C. HAMMEL, Marlton, R. F. D., No. 3.

District Warden, G. K. ECKSTEIN, Marlton, R. F. D., No. 3.

Waterford Township—

Township Warden, JOHN H. GOOD, Atco.

District Warden, Waterford District, BOWMAN H. BATES.

District No. 2, W. H. NORCROSS, Berlin.

Winslow Township—

Township Warden, JOSEPH H. GRAHAM, Cedar Brook.

Deputy Warden, JOSEPH H. GRAHAM, JR., Cedar Brook.

District Wardens, F. E. PRIESTLEY, Elm.

A. S. PARKER, Blue Anchor.

CHRISTOPHER G. CHEESEMAN, Sicklertown.

CAPE MAY COUNTY.

Lower Township—

Township Warden, LEWIS PIERSON, Erma.

Middle Township—

Township Warden, Samuel R. Sayre, Goshen.

District Wardens, TRUEMAN HICKMAN, Green Creek.

FRED. F. CRAWFORD, Cape May Court House.

Upper Township—

Township Warden, HOLLIS P. MICKEL, Petersburg.

CUMBERLAND COUNTY.

Commercial Township—

Township Warden, URIAH LORE, Port Norris.

Deerfield Township—

Township Warden, WM. J. BIVENS, Rosenhayne.

Downe Township—

Township Warden, M. J. DILKS, Dividing Creek.

Fairfield Township—

Township Warden, FRANKLIN F. ELMER, Fairton.

Landis Township—

Township Warden, GEORGE M. POULTON, Vineland.

District Wardens, Second District, WILLIAM MILO, Vineland.

Third District, SAMUEL LEATHERWOOD, Millville.

Lawrence Township—

Township Warden, JOSEPH CORSON, Cedarville.

Maurice River Township—

Township Warden, LEVI B. WILSON, Leesburg.

District Wardens, WM. LANGLEY, Heislerville.

J. FOX, Port Elizabeth.

GEO. W. PHIFER, Ormond.

ALFRED WEST, Millmay.

GLOUCESTER COUNTY.

Franklin Township—

Township Warden, JACOB F. MAIER, Malaga.

District Wardens, WESTLEY SURRAN, Pine Hollow.

HARRY W. JONES, Franklinville.

Monroe Township—

Township Warden, DUNLEVY LOUGHLIN, Williamstown.

MIDDLESEX COUNTY.

East Brunswick Township—

Township Warden, JOHN H. DILL, Spotswood.

Madison Township—

Township Warden, JAMES L. GREEN, Old Bridge.

Monroe Township—

Township Warden, EDWARD JOHNSON, Jamesburg.

Sayreville Township—

Township Warden, THOMAS GRIGGS, Sayreville.

South Brunswick Township—

Township Warden, SAMUEL H. LAKE, Monmouth Junction.

MONMOUTH COUNTY.

Atlantic Township—

Township Warden, THEODORE SNEDEKER, Colts Neck.

Freehold Township—

Township Warden, RICHARD V. MATTHEWS, Smithburg.

Howell Township—

Township Warden, JOSEPH L. BUTCHER, Farmingdale.

District Wardens, REUBEN ADDISON, Adelphia.

JAMES WOOLEY, Squankum.

Wall Township—

Township Warden, ROBERT C. THOMPSON, Allenwood.

MORRIS COUNTY.

Boonton Township—

Township Warden, ANDREW D. KINCAID, Boonton.

Hanover Township—

Township Warden, HARRY M. BALL, Boonton.

District Wardens, Rockaway Neck Dist., CHARLES E. DIXON, Boonton.

W. B. DAVIS, Morris Plains.

Rockaway Township—

Township Warden, SIDNEY F. COOK, Denville.

OCEAN COUNTY.

Berkley Township—

Township Warden, E. REED YODER, Toms River.

Deputy Warden, J. LESTER YODER, Toms River.

District Wardens, Double Trouble District, JAMES PORTER, Toms River.

Davenport District, JOSEPH WELDON, Toms River.

Brick Township—

Township Warden, JOHN A. DORSETT, West Point Pleasant.

Dover Township—

Township Warden, WALTER H. WRIGHT, Toms River.

Eagleswood Township—

Township Warden, WILLIAM E. COX, West Creek.

Jackson Township—

Township Warden, J. F. BROWN, Cassville.

Lacey Township—

Township Warden, WILLIAM COLE, Forked River.

Little Egg Harbor Township—

Township Warden, WILLIAM SPECK, Tuckerton.

District Warden, ELMER KING, Parkertown.

Manchester Township—

Township Warden, FREDERIC C. TORREY, Lakehurst.

Ocean Township—

Township Warden, ISAIAH STACKHOUSE, Waretown.

District Wardens, HENRY R. EISEMAN.

JOSEPH COUCH.

Plumstead Township—

Township Warden, MACK BELL, New Egypt.

District Warden, WILLIAM PARKER, Hornerstown.

Stafford Township—

Township Warden, DAVID M. WHITE, Manahawkin.

Union Township—

Township Warden, ARTHUR T. COX, Barnegat.

District Warden, GEORGE SWANEY, Cramer Place.

PASSAIC COUNTY.

West Milford Township—

Township Warden, CORNELIUS POST, Newfoundland.

District Wardens, AMOS UDDER, Mow P. O.

CHARLES B. RHINESMITH, Macopin.

SALEM COUNTY.

Alloway Township—

Township Warden, PETER S. HALTER, Cohansey.

Pittsgrove Township—

Township Warden, HENRY K. GARRISON, Centreton.

Quinton Township—

Township Warden, MULFORD D. LOUNSBURY, Quinton.

SUSSEX COUNTY.

Montague Township—

Township Warden, JOHN A. HILL, Montague.

Sandyston Township—

Township Warden, HIRAM C. C. SNOOK, Hainesville.

Sparta Township—

Township Warden, GEORGE GUNDERMAN, Sparta.

Vernon Township—

Township Warden, JOSEPH BURROWS, Vernon.

Wallpack Township—

Township Warden, EMMET H. BELL, Wallpack.

WARREN COUNTY.

Allamuchy Township—

Township Warden, CHARLES W. PUFFER, Allamuchy.

Blairstown Township—

Township Warden, I. R. TITMAN, Walnut Valley.

Hardwick Township—

Township Warden, DAVID R. NEWMAN, Blairstown.

Knowlton Township—

Township Warden, IRVIN S. APPLEMAN, Columbia.

Pahaquarry Township—

Township Warden, SAMUEL V. GARRISS, Millbrook.

The Forest Crop of New Jersey.

BY ALFRED GASKILL, FORESTER.

In the reports of the State Geological Survey, especially that of 1899*, the extent, character and value of the woodlands of New Jersey are very fully exhibited. Unfortunately, the practical conclusion of almost every paper is that a great part of the forest wealth of the State is wasted by fire or unwise cutting. Stated in a single sentence, New Jersey has upwards of two million acres of land from which only a small fraction of the normal crop is harvested. The reasons for this wasteful house-keeping may have been good, or at least sufficient, but now that the State is committed to a policy of forest conservation, of protection against fire, and of encouragement to private owners, the systematic production of a forest crop is possible, practicable, and sure to be profitable. This statement is based upon three admitted facts: 1. The whole upland area of the State, with a few unimportant exceptions, is forest-bearing. It was forested when the country was settled, and always reverts to forest when not regularly cultivated or too often burned. There is no restriction of the forest by deficiency of rainfall, high altitude or prairie conditions, as in many of the Western States. 2. On all classes of soil the growth of trees is rapid in comparison with that in many regions. Tillable land is naturally excluded from the forest, but that which is too rough or too hilly for successful farming will still grow chestnuts, oaks and other hardwoods at a rate surpassed only by the better lands of the South. The

* Report on Forests, Annual Report of the State Geologist for the Year 1899.

sandy lands of South Jersey are apt to be too light for agriculture, yet when not badly burned they will grow pine at a rate that will compare favorably with the white pine areas of New England and the Lake States. Even the swamps are productive, for in those of South Jersey the valuable white cedar grows, while in the north tamarack and spruce are found. 3. Every acre of forest is so near a market that all but its least valuable product is readily salable. No point in New Jersey is more than eighty miles from New York or Philadelphia, though in many ways the immediate local market, is, or may be, even more important.

Many estimates have been made of the market value of these forests, and of their annual product. All of them find that the total figures, even of the annual income, run into the millions. The census of 1900 showed that the value of crude forest products—rough lumber, shingles, poles, ties, etc.—was \$2,328,069. This sum is not great beside the \$63,750,849 that represents the value of Wisconsin's output, but if it be remembered that Wisconsin's lumber product is not wealth created but wealth consumed, whereas the lumber yielded by the forests of New Jersey represents for the most part no more than the interest on an investment, or the product of the soil; the real advantage is seen to lie with this State. The grounds for this statement are easily shown: Wisconsin is cutting virgin timber entirely, scarcely a stick now utilized has grown since the land was in private ownership. New Jersey, on the other hand, got rid of her virgin timber upwards of fifty years ago (the fact, not the wisdom of it is here considered) and practically all that is cut now, year by year, is what has been produced since man possessed the land and paid taxes on it. This fact is significant, for, if it be admitted that our forests can produce two millions a year under the grossest mistreatment, their possibilities under good management are at least threefold.

But this consideration of two million acres of land as a unit, important as it is in the economy of the State, means little to the individual owner. He wants to know what is his share of the profit or crop. From this standpoint the forest owner must

decide first of all which of the two systems of farming he will follow; whether he will grow lumber and firewood for the general market, or whether he will specialize and produce that which is most in demand in his neighborhood. In some parts of the State there is now more firewood than can be disposed of, therefore, the production of that as a general crop cannot be considered; on the other hand, lumber of any grade is a commodity and can always be sold. But though saw logs are salable anywhere and at all times, just as wheat is, they may be less profitable than other crops. That is, time and money expended to produce a forest crop having a high sale value will pay as surely as the effort that goes into truck farming. The kernel of the matter is then to find, or create, a market for the highest-priced material that a given forest will produce. Manifestly no trustworthy figures of the profit to be derived from this procedure can be given; that will depend on the individual and his opportunities just as the profit in trucking does, but a few suggestions of probable profitable lines may be made.

Fruit packages. New Jersey produced, in 1900, \$12,508,384 worth of fruit and vegetables, and is steadily increasing the amount year by year. The profitable handling of this crop is largely dependent upon neat, convenient and cheap shipping packages. Few of these actually are, though all may be, produced near where they are used. Maple, beech, poplar, chestnut and pine are all suitable.

Packing boxes. In the cities of the State, and those nearby, immense quantities of packing boxes are used. Some of them require coarse, cheap lumber, others must be neat and attractive. The bulk of the material now used for this purpose is brought from the South; New Jersey can supply a great quantity of it and the producers can retain most of what is paid for freight. This opportunity belongs largely to the southern part of the State, because pine is usually preferred to hard woods, though some one should set the fashion of chestnut for neat boxes—those in which soap, cereals, crackers, etc., are packed. It is strong, light in weight, attractive, and in the northern part of the State—close to where most boxes are used, it can be produced

as cheaply as pine. In southern New England the box industry is an important one, and is maintained almost entirely from the product of white pine wood-lots.

Railroad ties. It is estimated that 1,500,000 ties are required annually by the railroads of the State. Many of these have to be imported because the necessary quantity is not produced at home. First-class oak ties now bring 75 cents each at any railroad station, and chestnut ties are worth 65 cents. At these figures the growing of oak and chestnut for ties will yield a good profit on any but the poorest land. Many of the oak areas of South Jersey are capable of being converted from the sprout thickets, that now yield only firewood, to forest that will produce two-tie trees in from 60 to 70 years.

Wood alcohol and charcoal. Years ago, one of the chief industries in this State was charcoal burning, and many furnaces were dependent upon it. New processes of smelting accompanied the exhaustion of the original forests, and both industries vanished. But it is possible to produce charcoal in a better way than the old pits and to get from the wood a double product. In several States, chiefly Pennsylvania, Michigan and New York, wood alcohol, charcoal and acetate of lime are now made in large quantity, and by modern methods, from the waste or non-commercial wood of the lumbered forests. In other words, the fuel that is not usable in its native form is converted to valuable commodities. In all parts of New Jersey is a superabundance of fuel wood; only close to settlements does the demand equal the supply. As the forests of the State are protected and developed this excess is sure to increase. But it need not be wasted; the use of wood alcohol in the arts and as a fuel is increasing rapidly, charcoal also will find employment as its cost is reduced by the re-tort method of production, and no part of the forest is too remote to make possible its complete utilization in this way.

It is worth remembering always that the forests of Europe, of which so much is written, are profitable or not in direct proportion to the amount of fuel wood that is made use of. Those of France are in a bad way just now because the market for fuel is not so good as it was. Many of them have been worked

chiefly for coal-wood, and consequently cannot yield lumber in any quantity for many years. Rarely does any forest produce more than two-fifths of its total volume in wood of lumber size; the greater part is tops and branches. It is, therefore, of the first importance to find a use for the parts of a tree that the lumberman does not want.

There are many other ways in which a forest may be made to yield a paying crop, most of them the live owner will find out for himself when he shall have grasped the idea that growing trees is a profitable business. The only conditions are that high-priced land shall not be devoted to it, that fires and other wastes be controlled, and that the product be suited to a nearby market. All these conditions can now be met in this State. Few men will have any temptation to grow trees on land that will yield any annual crop even though it be of not much greater value. The waste places on the farm, the steep slopes and rocky ridges, the poor lands in general, are those that should bear forests. Protection against fire is now practically assured by the fire warden law and the public sentiment that has been awakened. A market for every forest product is reasonably sure in any part of the State. Nowhere in this country are producer and consumer in such close touch, or the one so well able to serve the other. In this respect, New Jersey stands in a remarkably favorable position for the economic development of its forests and forest lands. In all the United States only southeastern New England can compare with it. In many ways the situation is comparable with that in central Europe where the needs of a dense population having many industries have caused forestry to be practiced systematically in order that the people might live and their productiveness be not curtailed. Württemberg, one of the smaller German States, is not unlike New Jersey in every physical way. Its soil is variable, it has mountains and valleys, farms and many factory towns. Its area and its population are practically the same as ours. But the comparison cannot be carried to the value or the productiveness of the forests. The contrast may be shown in the following way:

COMPARISON OF FOREST VALUES IN NEW JERSEY AND IN WÜRTTEMBERG.

STATE.	Land area, acres.	Population.	Forest Area.		Annual value of forest products, dollars.	Annual revenue per acre, dollars.
			Acres.	Per cent. of land area.		
New Jersey,	4,809,218	2,144,134	2,069,819	46	2,328,069 ^a	1.12
Württemberg,	4,821,760	2,169,480	1,482,240	31	4,446,720 ^b	3.00 ^b

The significance of these figures rests less in the evidence that New Jersey's crop is so small than in the assurance that it may be so much better. It is true that the reported value of our forest products is probably less than it should be, since much firewood and some lumber are not counted in the census, but it is certain that the forests of the State yield less than \$3,000,000 a year, or not more than half as much per acre as those of Württemberg. It is true also that present lumber values here are much less than in Germany, yet no one will deny that the time is rapidly approaching when our forests and their crops will have higher but more stable values, based upon the cost of producing them. The end of the virgin forest of the eastern United States is in sight; when it is reached the whole region, south and north, will be in the position that New Jersey is today, at least so far as its ability to furnish competitive lumber is concerned.

There are other reasons why land devoted to forest may be valuable to the owner. It needs no cultivation, no fertilizer, and the crop can be harvested when it is most convenient. This greatly simplifies the labor problem, for all the necessary work can be done at a time when there is little else to do. The harvesting of a forest crop need not destroy or seriously interfere with the

a. Census of 1900. Product of lumber camps and saw mills, \$1,859,014; product of farms, \$469,055.

b. Estimated. The Government forests, 483,357 acres, yield a net revenue of \$3.57 per acre, but the private forests are less productive as a rule.

beauty of a forest. The mature trees can be taken out without disturbing the rest, and where the branch-wood is used all evidence of the felling is soon obliterated. The objection that trees grow too slowly to make forestry practicable is valid only when the trees must be started from the seed; then, indeed, the time does seem long, though this difficulty has not deterred farmers on the prairies from planting trees and waiting for them to grow. But the forests of this State are already partly grown. If the owners will but take care of them and limit the cutting to a quantity not greater than the growth they will last indefinitely. Many a farmer knows that a fifteen acre wood-lot will yield year after year all the posts, firewood and repair lumber that he needs.

This then is the principle of a forest crop: Treat the forest so that it shall yield the greatest quantity of the most valuable wood. Cut each year a quantity equal to the annual growth. In practice, this rule may be difficult to carry out, but the same end is attained if two years' growth is cut every two years, or the fellings are made at intervals of ten years. Of course one year's growth or ten years' growth has no value in itself; the rule means that if an acre of forest produces 10 cubic feet of wood a year, that much may be taken in one or two of the largest trees while the rest are left to grow for later fellings.

Legislation.

The law creating the Forest Park Reservation Commission, approved March 22, 1905, with amendment approved March 27, 1906, and supplement approved March 24, 1906.

The law creating the Forest Fire Service, approved April 18, 1906.

The Law Creating the Forest Park Reservation Commission and Defining Its Duties.

(With Amendment and Supplement Approved in 1906.)

CHAPTER 47, LAWS OF 1905.

AN ACT for the establishment of forest park reservations by and in the State of New Jersey, and for the appointment of a state board of forest park reservation commissioners, and defining its powers and duties.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. There is hereby established a state board of forest park reservation commissioners, to consist of five members, which said board shall be a body politic and corporate, with perpetual succession under the name of "state board of forest park reservation commissioners," with power to sue and be sued, with power to adopt and use a corporate seal, and the right, power and authority to acquire, hold and use all such property, real and personal, as may be proper or necessary, and with all other powers proper or necessary to carry out and effectuate the purpose for which said board is created; of this board the governor and the state geologist shall be ex-officio members, and the other members shall be citizens of the state appointed by the governor, by and with the advice and consent of the senate; the terms of office of the said commissioners shall be three years, the term of the governor and of the state geologist to run concurrently with their term as governor and state geologist respectively; the term of the three appointed members to begin from the date of their first appointment, which said appointments shall be made promptly upon the taking effect of this act; of those so first appointed, one shall be for a term of one year, one for a term of two years and one for a term of three years; and thereafter all such appointments shall be for the terms of three years as aforesaid; any vacancy that may occur by death, resignation or otherwise shall be filled by the governor but for the unexpired term only.

Forest park reservation commissioners.

Powers and duties.

Ex-officio members.

Terms.

Vacancy.

2. Said board shall have power to acquire a fee simple estate in any lands to be taken for the purposes of forest park reservations, as in this act hereafter directed, or any easement or profit a prendre that said board in its discretion may deem best; the said acquisition may be accomplished either by deed, gift or devise, or, if neces-

Acquirement of lands.

sary, by condemnation proceedings, to be instituted by and in the name of said board, under and pursuant to an act entitled "An act to regulate the ascertainment and payment of compensation for property condemned or taken for public use (Revision of 1900)," being chapter fifty-three, laws of one thousand nine hundred, with any amendments thereof or supplemental thereto; said board shall have power to hold said lands and any estate, easement or profit a prendre therein for the benefit of the people of the state of New Jersey; and said lands so held by said board shall not be sold, aliened or encumbered in any way, except pursuant to an act of the legislature.

Preservation
and manage-
ment.

3. The care, management and preservation of the forest reserves, and the forests thereon, as well as future growths thereon, and all moneys appropriated in that behalf, or collected therefrom in any way, and all personal property acquired to carry out the purposes of this act, are hereby confided to and vested in said board, as the same may be herein or in subsequent acts defined and required; the board shall observe, keep in view, and, so far as it can, put in operation the best method to reforest cut-over and denuded lands, to forest waste and other lands, to prevent injury of forests by fire, the administering and care of forests on forestry principles, the encouragement of private owners in preserving and growing timber for commercial and manufacturing purposes, and the general conservation of forest tracts around the headwaters and on the water-sheds of all the water courses of the state, said board shall make reports of its work, conclusions and recommendations to each session of the legislature, and from time to time publish, in a popular manner, and print for popular distribution, in bulletin or other form, such of its conclusions and recommendations as may be of immediate public interest; whenever it shall appear that the welfare of the state, with reference to reforestation and the betterment of state reservations, will be advanced by cutting or selling or disposing of any of the timber on forestry lands, the board is hereby empowered to cut and sell such timber on terms most advantageous to the state; and said board is hereby empowered to make or execute contracts in the name of the state for the carrying out of the purposes of this act; the board shall have power to employ such persons as are necessary for carrying out the provisions of this act and to fix their compensation.

Reports.

As to cutting
or selling
timber.

Employees.

Misdemeanor
to cause fires
or to cut
timber.

4. Any person or persons who shall set, or cause to be set, any fire upon any of the forestry reservations of this state, except in accordance with such rules or regulations as may be prescribed by said board, or who shall set or cause to start any forest fire upon property near or adjoining any state forestry reservation whereby the timber of said reservation is damaged, or who shall cut or remove any timber whatever from any forestry reservation, except in accordance with the rules and regulations of the board, shall be guilty of a misdemeanor, and may be punished accordingly; all fines and penalties when collected shall be paid to the

executive officer of said board, who is hereby directed to pay the same over to the state treasurer.

5. If said board, in its discretion, shall appoint any fire wardens under section three of this act, all such fire wardens, while in the performance of their duties, shall, within the territories of any forest reservations, have power to abate any nuisance existing therein; it shall be their duty, furthermore, to prevent and extinguish forest fires and to enforce the rules and regulations of the said board by arrest if necessary.

Fire wardens.

6. The title of all lands acquired by the state for forestry reservations shall be taken in the name of the state, and all such forestry reservation lands shall be exempt from taxation from the time of their acquisition; in all cases where lands have been purchased, or may hereafter be purchased, by said board for forest reservations, where there are public roads, regularly established, running into or through said lands, said board, under such rules and regulations as the said board is hereby authorized to make, may expend such sum per mile in each year as said board shall deem wise for the maintenance, repair or extension of any such roads; all expenses that may be thus incurred shall be subject to the approval of the board and of the governor of the state, and shall be paid in the same manner as other expenses are provided for in this act.

Title to rest in state.

Maintain roads.

7. No title or interest in any of said lands held by said board as aforesaid shall be subject to be taken by any body corporate, whether municipal or private corporation, or any person whatsoever possessing the power of eminent domain, by condemnation proceedings, in the exercise of said power of eminent domain against the said board or the state of New Jersey, as respects all lands or interests therein included in said reservations.

Right of eminent domain.

8. (As amended by Chapter 46, Laws of 1906). Whenever the board shall deem it expedient and proper to purchase lands for a forest reservation in any part of this state, the board shall, by resolution, fix the price to be paid for said lands, and shall instruct the executive officer to enter into a contract, in the name of the state of New Jersey, with the owner or owners thereof for the purchase of the same; which contract shall contain a covenant on the part of the owner or owners that they have a good title in fee simple to the land proposed to be conveyed, and that said lands, when so conveyed, will be conveyed free and clear of all taxes, liens or encumbrances of any kind or character whatsoever. After the entry into said contract by said executive officer, it shall be his duty to prepare an accurate map of said lands to be filed in the office of the said board.

Action to establish a forest reservation.

Contract.

Map.

The said board shall have power to order and pay for all searches as they shall be advised by the Attorney-General to be necessary; and when the Attorney-General shall have advised said board, in writing, that the title to the property proposed to be purchased is clear, and that there are no taxes, liens or other encumbrances against the same, said board is hereby authorized

Searches.

to accept a conveyance of said lands, and to pay the price so fixed as aforesaid for the same.

Secretary
of board.

9. There shall be a secretary to said board, who shall be elected by a majority of the board, whose term of office shall be three years from the date of his first appointment, his successor to be immediately appointed upon the expiration of his first term; the salary of said secretary shall be fixed by the board, payable in monthly installments upon warrant of the comptroller by the state treasurer; it shall be the duty of the said secretary to keep proper records of said board, and any copy of any record, under the seal of the board, signed by the secretary, shall be of the same evidential effect in all the courts of this state as an exemplified copy of any recorded deed, according to law as now constituted.

Duties.

Officers of
board.

10. The governor shall be ex-officio president of the board, and the state geologist shall be executive officer thereof; the three appointed members of the board shall serve without compensation, the expenses of the members of said board incurred in the business of the board shall be payable out of the treasury of the state on the certificate of any member certifying to the comptroller what expenses have been incurred; provided, same is attested by the secretary.

Proviso.

Expenses.

11. The purchase money for lands acquired, and all expenses incurred in said purchase, and all expenses incurred in connection with the management and holding of the state forestry reservations, shall be paid by the state treasurer from moneys in the state treasury not otherwise appropriated, on warrant of the comptroller upon vouchers certified by the secretary, duly approved by resolution of the board; provided, however, such sums shall not exceed the amount annually appropriated therefor by the legislature; all moneys received by said board from sources other than by legislative appropriations shall be paid into the state treasury.

Proviso.

Seal.

12. Said board shall have an official seal, which seal shall bear inscribed on it "board of state forestry reservation commissioners of the state of New Jersey," with some proper emblem therein, to be adopted by said board.

13. This act shall take effect immediately.

Approved March 22, 1905.

A SUPPLEMENT.

CHAPTER 25, LAWS OF 1906.

A SUPPLEMENT to an act entitled "An act for the establishment of forest park reservations by and in the State of New Jersey, and for the appointment of a State Board of Forest Park Reservation Commissioners and defining its powers and duties."

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. The State Board of Forest Park Reservation Commissioners shall have power to enter into contracts with the governing body of any city, town or other municipality, or with any municipal board or commission owning, holding or having control of any lands suitable for forest growth, or with any individual personal or bodies corporate owning lands suitable for forests, for the control and management of such lands for forestry purposes, for the establishment of an arboretum or for experiments in forest culture.

2. This act shall take effect immediately.

Approved March 24, 1906.

Law Relating to Forest Fires and the Appointment of Fire Wardens.

CHAPTER 123, LAWS OF 1906.

AN ACT for the appointment of fire wardens, the prevention of forest fires and the repeal of sundry acts relating thereto.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. The State Forest Park Reservation Commission shall have power to appoint a state fire warden and to fix his salary. He shall hold office during the pleasure of the commission. Fire warden.

2. The township committee, or governing body of every township in this state shall, within thirty days after receiving notice in writing from the State Board of Forest Park Reservation Commissioners, appoint some suitable person to act as township fire warden for a term of one year and until his successor shall have been appointed, and on failure to do so, the State Board of Forest Township
fire wardens.

Park Reservation Commissioners shall make such appointment. Such appointment, when accepted, shall be promptly certified to the state fire warden. The person so appointed may be summarily removed by said commission. If any person so appointed is so removed said commission shall promptly notify the governing body making such appointment, and said governing body shall, at its next meeting, fill the vacancy for the unexpired term; *provided*, no person so removed by said commission shall be eligible for reappointment within one year from the date of said removal. When required by the state fire warden, the town fire warden shall establish two or more districts for the township for which he is appointed, and shall appoint a resident of such district as district fire warden; *provided, however*, no district fire warden shall be appointed for the district in which the town fire warden lives. Any fire warden shall have power to designate one or more proper persons to act as deputy or deputies in case of his absence or disability from any cause. He shall file with the state fire warden the names and addresses of all district fire wardens and deputies appointed by him, and shall specify districts to which they are assigned.

District
fire wardens.

Deputy
fire wardens.

Supervision
by State fire
warden.

3. The state fire warden, under the direction of said commission, shall have supervision of all township and district fire wardens, shall visit each township as often as necessary and fully acquaint each fire warden with his duties, notify the commission of all vacancies on the roll of fire wardens as soon as they occur, see that the townships are properly divided into districts of suitable size and proper location, and that district fire wardens are appointed as provided by law, have charge of fire wardens' reports, and, when the cause of a fire is not reported, ascertain its origin. When it appears that the provisions of this act have been violated he shall collect evidence of such violation, and, when duly authorized by said commission, institute prosecutions for such violations. He shall also have supervision of all bills against the state rendered by the various municipalities for fighting forest fires.

Fire patrol.

4. Town and district fire wardens shall establish a fire patrol to prevent and extinguish fires during such seasons, and in such localities as may be prescribed by the State Board of Forest Park Reservation Commissioners, and they shall enforce all statutes of this state now in force, or that may hereafter be enacted for the protection of forest and timber land from fire, and shall carry out the instructions and directions of the state fire warden regarding the prevention and extinguishing of forest fires. They shall have control and direction of all persons and apparatus engaged in extinguishing forest fires. They may plow land, or, in an emergency, set back fires to check any fire. They may summon any male inhabitant of their district between the ages of eighteen and fifty years to assist in extinguishing fires, and may also require the use of horses and other property needed for such purpose.

Fire wardens
may summon
assistants.

Any person so summoned, who is physically able, who refuses or neglects to assist, or to allow the use of horses, wagons, or other material required, shall be liable to a penalty of ten dollars. If, in the judgment of a fire warden, a forest fire in an adjoining township shall imperil the safety of any property in his own township, he may, with assistants summoned as aforesaid, take such measures to extinguish the fire, or prevent its spread as he would take were it in his own municipality; *provided*, that if any fire warden of the township in which the fire is located be present at the fire, all work shall be done under his direction and control. Such service shall be paid for, as hereinafter provided, by the township in which the fire is located. If the state fire warden be present at any fire he shall, *ex-officio*, have complete control, and the township fire wardens shall rank under him according to length of service, except that the township warden in whose territory the fire is shall rank next to the state fire warden. The state fire warden may summon to his aid fire wardens from surrounding townships, with their assistants, and in such case the state shall bear the whole expense of paying such fire wardens and assistants as reside in townships which the fire does not enter. No action for trespass shall lie against any person crossing or working upon lands of another to extinguish fire.

Penalty.

Authority at fires.

5. The State Board of Forest Park Reservation Commissioners shall have power, from time to time to prescribe such other duties and to make such regulations governing fire wardens for the prevention, fighting and extinguishment of forest fires, as in their judgment shall be efficacious for that purpose. They may purchase and distribute to fire wardens such material and equipment as they may deem necessary for carrying out the provisions of this act. The state fire warden shall be custodian of and responsible for all such material and equipment, under such rules as said commission may prescribe.

Other duties of fire wardens.

6. The town committee or other governing body may fix the rate to be paid fire wardens and persons employed by them to prevent or extinguish forest fires, and shall give notice thereof to the town fire warden and to the state fire warden. If the township committee or other governing body fail to fix said rate, the following shall apply:

Compensation.

Fire wardens, while engaged in fighting fires, three dollars per day.

Fire wardens, while otherwise employed, two dollars per day.

Helpers, fighting fire, one dollar, and at the rate of twenty cents per hour for more than five hours.

Helpers, on patrol or otherwise employed, at the rate of one dollar and fifty cents per day.

The fire wardens shall render to the governing body of the township in which the fire occurred, a statement of the services rendered by them and by the men, teams and other apparatus employed by them as provided by this act, within one month of the

Bills for services.

date of such service, which said bill shall show in detail the amount and character of the services performed, the exact duration thereof, and all disbursements made by said wardens, with receipts for amounts of one dollar and above. If said bill be duly approved, it shall be paid in such manner and by such official as other bills of said township are paid. Certified copies, in duplicate, with evidence of payment shall be filed with the state fire warden. Upon approval of said bill by the State Board of Forest Park Reservation Commissioners, one-half of said amount shall be repaid said township by the state treasurer upon warrant of the state comptroller: *provided, however*, the state shall pay the entire cost of extinguishing fires originating on and restricted to state forest reservations, and such bills shall not be presented to the township committee, but certified to the state fire warden directly; *and provided further*, that in no case shall the State's share of any bill be based upon a higher rate for services than as fixed above.

If destroyed area more than acre, report to State warden.

7. In case a forest fire burn over more than an acre of land, the fire warden of the township in which it occurs shall within ten days make a report thereof to the state fire warden, giving the area burned over, the kind, age and quality of the standing timber, the quantity of timber, wood, logs, bark or other forest products, and of fences, bridges and buildings destroyed, with an estimate of the value thereof. He shall also report the cause of the fire, the names of any and all persons whom he may know or suspect to have knowledge of the cause, and the means used in putting it out.

Notices posted.

8. The town and district fire wardens shall post such notices concerning forest fires as the state fire warden may prepare, and any person who shall willfully or maliciously tear down or destroy any such notice, shall be liable to a fine of ten dollars.

Closed season for burning brush.

9. In any township in which fire wardens have been appointed under the provisions of this act, fallows, stumps, logs, brush, dry grass or fallen timber shall not be burned from March tenth until May thirty-first, both inclusive, unless the written permission of the town or district fire warden of the town or district in which the fire is set has been first obtained. Such permission shall not be granted by any fire warden if, in his opinion, any forest or woodland will be endangered thereby, nor shall such permission, if granted, relieve or exonerate any person from any penalties under this act, in case by reason of such fire, any forest, brush land, or woodland be burned..

Fires must be watched.

10. All persons who shall burn any pit of charcoal, or set fire to or burn any brush, grass or other material whereby any property may be endangered or destroyed, shall keep and maintain a careful and competent watchman in charge of said pit, brush or other material while burning.

Back firing allowed.

11. No person shall willfully, negligently, carelessly, or in any manner set fire to or burn or cause to be burned, any waste land, brush land or forest land, but nothing in this section shall be interpreted to forbid any person from setting a back fire, a ground

fire, or a surface fire upon his own property to protect the same; *provided, however*, if such fire be permitted to escape or does escape to adjoining property, then the person setting such fire, or causing it to be set, shall be deemed to have violated the provisions of this section. Any fire warden, however, shall have the power to set, or direct to be set, any back fire.

12. Every person who shall violate any of the provisions of this act, and every person who shall obstruct or in anywise interfere with any fire warden, his deputies and assistants, in the performance of any duty under this act, shall be liable to a penalty of not less than fifty dollars, nor more than two hundred dollars, except as otherwise provided in this act. Any fire warden, or deputy acting in the absence or disability of a fire warden, may arrest, without warrant, any person or persons taken by him in the act of violating any of the provisions of this act, and shall proceed against such person or persons in the manner prescribed by this act.

Penalties.

13. Every district court and every justice of the peace in any city or county, and every police justice or recorder in any city is hereby empowered, on complaint under oath or affirmation made according to law that any person or persons has or have violated any of the provisions of this act, to issue process, in the name of the State Board of Forest Park Reservation Commissioners, as prosecutor, for the use of the State of New Jersey. Said oath or affirmation, if made by a fire warden, or by a member or officer of the said commission, may be upon information or belief. Said process shall be in the nature of either a summons or warrant against the person or persons so charged; when in the nature of a warrant, it shall be returnable forthwith, but before any warrant shall issue out of any district court the judge thereof shall endorse upon the complaint an order in the following or similar words: "Let the warrant issue in this case." To which said judge shall sign his name; and when in the nature of a summons, it shall be returnable in not less than one or more than ten entire days. Such process shall state what section of the law is alleged to have been violated by the defendant or defendants; and on the return thereof, or at any time to which the trial shall have been adjourned, the said district court, justice of the peace, police justice or recorder shall proceed to hear the testimony, and to determine and give judgment in the matter, without the filing of any pleadings, either for the prosecutor for the recovery of such penalty with costs, or for the defendant or defendants. If such judgment be for the prosecutor as aforesaid, it shall be in the following or similar form: "State of New Jersey, county of _____, ss: Be it remembered that on this _____ day of _____, in the year of our Lord nineteen hundred _____, at _____, in said county, C. D., defendant, was, by the district court of the city of T. (or by me, E. F., justice of the peace, police justice or recorder of the city of _____, or as the case may be), convicted of violating the _____ section

Magistrates may issue process.

of the Act of the Legislature of New Jersey entitled 'An act for the appointment of fire wardens, the prevention of forest fires, and the repeal of sundry acts relating thereto,' approved the eighteenth day of April, anno domini nineteen hundred and six, in a summary proceeding, at the suit of the State Board of Forest Park Reservation Commissioners, as prosecutor; and further, that the witnesses in said proceeding who testified for the prosecutor were (name them); and the witnesses who testified for the defendant were (name them); wherefore the said court (or justice of the peace, police justice or recorder, as the case may be) doth hereby give judgment that the prosecutor recover of the defendant dollars penalty and

dollars costs of this proceeding, and that execution do issue against the goods and chattels of said defendant for the amount of said penalty and costs, and for want of sufficient goods and chattels whereon to levy and make the same, to take the body of the defendant and convey him to the common jail of the county and deliver him to the keeper thereof, to be there confined until the said penalty and costs be fully paid, or until he be thence delivered by due course of law." Said judgment shall be signed by the judge of the district court, justice of the peace, police justice or recorder giving the same.

Appeal may
be taken to
court of
common pleas.

14. If either the prosecutor or the defendant or defendants be dissatisfied with any judgment given under the provisions of the thirteenth section of this act, the dissatisfied party may appeal to the court of common pleas of the county in which the judgment appealed from shall have been rendered, which appeal shall be taken by filing with the court, justice of the peace or recorder who gave the judgment, a notice of such appeal, signed by the appealing party, or his, her or their agent; *provided, however*, that no appeal shall be allowed to or taken by any defendant from any judgment against such defendant unless, with said notice of appeal, such defendant shall also file a bond, with at least one sufficient surety to be approved by the court, justice of the peace or recorder who shall have given the judgment, in double the amount of the judgment, and conditioned that the appellant or appellants shall appear and prosecute the appeal in said court of common pleas, shall stand to and abide the judgment of said court of common pleas, and shall pay such costs as shall be taxed against the appellant or appellants, if the judgment appealed from be affirmed. The court, justice of the peace or recorder who shall have given the judgment appealed from shall send a transcript of the proceedings and judgment and said notice of appeal, together with any bond that may have been filed under the provisions of this section above contained, to the clerk of the court of common pleas to which the appeal is taken on or before the first day of the term of said court next ensuing such appeal. In any case of appeal by a defendant after execution shall have been issued, the court of common pleas to which the appeal is taken, upon receiving satisfactory proof that the notice of appeal above mentioned has

been filed with the court, justice of the peace or recorder who gave the judgment, and upon filing with the clerk of the court of common pleas to which the appeal is taken, such bond as aforesaid, to be approved by said court of common pleas, may stay the execution until the further order of said last-mentioned court, a rule to which effect shall be entered in the minutes of the said last-mentioned court, and a copy thereof, certified by the clerk of said last-mentioned court, shall be served on the constable in whose hands the execution may be. The said court of common pleas shall proceed to hear and determine such appeal in the same way and manner as said case was heard by such district court, justice of the peace, police justice or recorder.

15. In case judgment as aforesaid shall be rendered against any defendant, in any such proceedings as aforesaid, execution shall thereupon be granted by the court, justice of the peace, police justice or recorder giving the judgment, commanding the officer to whom the execution is delivered to levy and make the amount of the penalty and costs imposed by the judgment out of the goods and chattels of the defendant, and for want of sufficient goods and chattels whereon to levy and make the same, to take the body of the defendant and convey him to the common jail of the county and deliver him to the keeper thereof, to be there confined until the said penalty and costs be fully paid or until he be thence delivered by due course of law.

Execution
granted by
magistrate.

16. The officers to serve and execute any process or execution issued as aforesaid shall be the sheriff or any constable of the county, and, within the jurisdiction of any district court, shall include the sergeant-at-arms thereof, which service and execution shall in all cases be made in the same manner and under the same liabilities that other processes and executions issued out of the district court of this State are served and executed under and by virtue of the provisions of the act entitled "An act concerning district courts," approved June fourteenth, in the year eighteen hundred and ninety-eight. The costs taxable and recoverable in any case prosecuted as aforesaid shall be the costs allowed by the act last above-mentioned in cases prosecuted in district courts. The penalty recoverable in any such action shall be paid to the prosecutor therein, who shall pay one-half thereof into the treasury of this state, and the other half to the person by whose evidence conviction is secured. The judge of the district court, justice of the peace, police justice or recorder before whom any case is prosecuted under the provisions of this act may adjourn the hearing thereof from time to time, not exceeding thirty days from the return day of the summons or warrant; and, in any case where a warrant shall have been issued, may require the defendant to enter into a bond with sufficient surety to the plaintiff in the penal sum of two hundred dollars, conditioned to appear at the time and place of the hearing or trial, and, in default of such bond, may commit the defendant to the common jail of the county, to be there detained until the hearing or trial of the complaint; and

Officers to
serve process
or execution.

if any defendant shall fail to appear at the time and place to which the hearing or trial shall be so adjourned, the bond shall be delivered to the prosecutor, who may sue thereon, and all moneys recovered in such suit shall be paid by the prosecutor into the state treasury.

Use of money
appropriated.

17. All money heretofore appropriated by any township, or paid to any township by the state under an act entitled "An act concerning forest fires and the prevention thereof," approved April third, being chapter 139 of the laws of nineteen hundred and two, shall be used and expended for no other purpose than the prevention, fighting or extinguishing of forest fires. All expenses incurred by the State Forest Park Reservation Commission in carrying out the provisions of this act shall be paid by the state treasurer, on warrant of the comptroller, upon vouchers duly approved by the commission; *provided, however*, such sums shall not exceed the amount annually appropriated therefor by the Legislature.

Acts and
parts of acts
repealed.

18. The following acts and parts of acts are hereby repealed:

I. "An act to prevent the burning of woods, marshes and meadows," passed November twenty-fourth, one thousand seven hundred and ninety-four.

II. "A Supplement to 'An act to prevent the burning of woods, marshes and meadows,' passed November twenty-fourth, one thousand seven hundred and ninety-four," approved March third, one thousand eight hundred and seventy-five.

III. "A Supplement to 'An act to prevent the burning of woods, marshes and meadows,' passed November twenty-fourth, one thousand seven hundred and ninety-four, approved March twenty-fourth, one thousand eight hundred and seventy-five.

IV. "A Supplement to 'An act to prevent burning of woods, marshes and meadows,' passed November twenty-fourth, one thousand seven hundred and ninety-four," approved March twenty-third, one thousand eight hundred and eighty-eight.

V. "An act to provide for the extinguishment of forest fires in the third and fourth-class counties of this state and to provide for the payment of the expenses thereof," approved March twenty-third, one thousand eight hundred and ninety-two.

VI. "A Supplement to 'An act to provide for the extinguishment of forest fires in the third and fourth-class counties of this state, and to provide for the payment of the expense thereof,' approved March twenty-third, one thousand eight hundred and ninety-two," approved May fourteenth, one thousand eight hundred and ninety-four.

VII. "An act concerning forest fires and the prevention thereof," approved April third, one thousand nine hundred and two.

VIII. Section 130 of "An act for the punishment of crimes" (Revision of 1898), approved June fourteenth, one thousand eight hundred and ninety-eight.

Approved April 18, 1906.

This law became operative July 4th, 1906.

RUTGERS THE STATE UNIVERSITY



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