

ERT shortly after Roosevelt succeeded McKinley as president of the United States, he announced the adoption by his administration of a definite forest policy. This policy so far as the western states were concerned simply meant that all of the public lands covered with timber of commercial value, and all the mountain ranges which were important sources of water supply, would be withdrawn from entry and as national forests, be

managed by the federal government. At that time, 1901, and 1902, the valuable timber and grazing lands were being taken up very rapidllization, which learns how to preserve and care for these resources. PRODUCTS OF THE SOIL.

Food may be called the prime necessity and the first duty of a nation should be the study of agriculture for in the last analysis the soll is the source of all foods.

In the older countries the use of the soil for the production of crops has been reduced to an exact science and they are now able to use the same soil generation after genration, century after centur, without decrease in productiveness. In the United States, on the other hand with almost unto secure their adoption. It is improbable that laws will ever be necessary for the purpose but I believe they would be constitutional and if selfinterest is not sufficient to gain the adoption of the best methods of preserving the soil resources the nation would be fully justified in enacting pertinent legislation.

I do not believe that any person will deny the ultimate wisdom of preserving the productiva quality of the agricultural lands for our very lives and the life of the nation depends upon it. But "timber is also a product of the soil and while not so necessary to existence as food, it is probably next in importance and is largely responsible for most unbellevable quantities of timber to supply which whole states were denuded. Their forests were cut without regard to the future production of timber and about 20 years ago the people of the east realized the seriousness of their mistake. Besides the practical exhaustion of the timber supply, the removal of the forests had a most grave effecton the water supply, increasing the floods, reducing the flow in the periods of low water, washing away the soil from the mountain sides and depositing it in the rich farm lands in the valleys.

The states immediately took steps to remedy conditions and the last 20 years have witnessed tana, Arizona and New Mexico, had they not been reserved. The supply of timber even for local use would have been exhausted by 1930, and the western states would have been forced to import their lumber from Canada, Alaska, Mexico, South America or Siberia.

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All the grazing lands in the mountain ranges of these states and Utah, Nevada, Wyoming and Colorado, would have passed into the possession of stockmen and these mountain ranges which are the main source of the water supply for irrigation would have been grazed by the stockmen without regard to the effect on the water supply.

The forests would have been destroyed by the

ly by the lumber companies and stockmen and prompt action was necessary if the forests and sources of water supply, which the president looked upon as national resources were to be preserved for the use of the people for all time.

He therefore caused the timber regions and mountain ranges of the western states to be examined, mapped and described and with this information to guide him he proceeded to reserve as national forests all the lands important for their timber or for their water supplying capacity.

STUPENDOUS WORK.

The work of examining and mapping the lands was begun in 1902, and practically completed in 1906. In all about 300,000,000 acres were examined of which about 100,000,000 were included within national forests by proclamation of the president.

Stated briefly the forest reserve conditions are about as follows: The total area of western states, Arkansas, Arizona, California, Colorado, Kansas, Montana, Nebraska, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Washington and Oregon, is approximately 1,000,000,000, acres. Of this 155,000,000 acres or 15 per cent is in national forest.

These lands have about 500 billion feet of timber or one-half of the total supply of the west, and worth a billion dollars.

Probably 75 per cent of the forest lands are used for grazing purposes and they are now providing feed for the whole or part of the feed for 6,000,000 sheep and 1,000,000 cattle and horses which together represent an investment in livestock, grazing and ranch land of \$100,000,000 or more.

Then in the streams flowing through the forest are almost incalculable water powers which sometime will be used to furnish the power to run the railroads, streetcars, factories, mines, for lighting and heating and numerous other purposes.

BEING HELD IN TRUST.

In short the federal government holds in these national forests, for the benefit of the people of the west resources in wood, water and forage worth several billions of dollars and its one object in their management, is to preserve and improve these vast resources for the use of this and coming generations.

Prior to the creation of the national forests the great resources were used by the people of the west without restriction and without payment to the government and it could not but happen that the enforcement of regulations govering their use, would meet with severe criticism on the part of the beneficiaries of the government's previous policy of indulgence and sufference. A large proportion of this antagonism has disappeared in the last two or three years but many people still hold the policy to be contrary to democratic principles and I should like to try in this article to show that the first policy adopted by the administration is the only possible solution of a problem which has confronted the government of the United States since its inception.

The prosperity of every nation is dependent on the capacity of the territory which it inhabits to supply the necessities of life which in this modern civilization consist of food, and water, clothing and sheiter, heat and power. These are all products of the natural resources, soll, water, minerals, and that nation will enjoy the greatest prosperity, longest life, and greatest advance in civ-

limited new areas to draw upon, practically no attention up to 50 years ago had been paid to the science of agriculture. As a result millions of acres of land in the eastern states, once productive have been abandoned, and in the Mississippi and Missouri valleys probably the richest agricultural region in the world, the production has decreased 25 per cent since the settlement of the country. For example in my native state, Nebraska, the average yield of corn per acre 20 and 30 years ago was from 60 to 75 bushels; at the present time is it only 40 to 50 bushels. This deterioration has been brought about by neglecting the proper methods of cropping, the same crops have been grown every year, the stalks have been removed or burned, and no fertilizers have been applid to replace the materials taken by the crops. A multitude of similar examples could be presented but it is sufficient to know that the agricultural land in almost every portion of the United States is decreasing in productivity under the existing methods.

PRACTICAL DEMONSTRATIONS.

The land all being held in private ownership, any improvement in methods can only be made through education of the farmers, and the agricultural department is engaged at the present time in carrying on experiments in every state and territory to prove that better results and greater final pofits can be obtained by the adoption of approved scientific methods of agriculture. It is only necessary to prove to the land owners that the methods are practical and will result in larger financial returns and enhanced value of the land our rapid progress and unequalled prosparity, for the abundent supplies of timber have put shelter and homes within the reach of all.

While, however, timber is a product of the soil its manner of growth, few species of trees being able to reach commercial value in less than 100 years, has and will prevent individuals from gaining a livelihood through its cultivation.

When it is remembered that it requires a promise of very large profits to induce individuals to plant fruit trees which only require five years to become productive, it will be apparent that we can not look for them to plant a crop which requires two generations to yield returns.

Governments however endure from century to century and upon them must be placed the duty and responsibility of providing this other necessity to the life of the nation.

That portion of the United States east of the Mississippi from its source in Lake Itasca to its mouth was orginally one vast forest.

WHOLE STATES DENUDED.

Into this wilderness came the early settlers 300 years ago and to gain land for crops the forests had to be cleared. Up to the close of the Civil war only the land valuable for agriculture was cleared, but on the termination of the war, there began the settlement of the prairies of the Misisissippi and Missouri valleys, the development of manufacturing, railroads, coal and iron mines, making what is probably the most remarkable period of human activity in the history of the world.

This tremendous development called for al-

the enaction of forest legislation in almost every eastern state.

STATE FOREST RESERVES.

New York, Pennsylvania, Michigan, Wisconsin, Minnesota, New Jersey and Maine have commenced the establishment of forest reserves but overy acre of the land must be purchased at prices ranging from 50e to \$10 per acre, and the progress must necessarily be slow. These and other states have created forest departments consisting of a commissioner or forester and fire wardens and the movement is rapidly extending to other states. It would not be rash to prophesy that every state and territory will have such a department inside of 10 years.

The awakening of the states to the importance of forest preservation, reacted on the national government and with the conditions in the east before them, Congress set about to prevent their repetition in the west, and the adoption of the national forest policy was the result. At a time when the wisdom of this policy is being widely criticised by many western concressmen and senators, it may be interesting to attempt a description of the conditions which would have resulted, had this policy not been adopted.

BENEFITS OF FORESTRY POLICY.

Thirty years after the lumbermen entered the forests of Michigan and Wisconsin they were practically destroyed and left barren wastes, all chance of a second growth of timber being destroyed by the fires which followed. The same conditions would have resulted in the heavy forests of California, Oregon, Washington, Idaho, Mon-



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fellowship with American artists, and entone himself with the workers of his own generation who will produce what the world will most admire in the next two decades. His seagull monument it is promised shall be erected in the spring, and when it is it will commemorate decidedly the most beautiful of American folk-storles, and one that needs no varnish of untruthful romance to enrich its appeal. His Joseph, in the form of a plaster cast, is completed except for a few slight alterations which have been suggested after Intense scrutiny on the part of those still alive who knew him, and those who have made it a special study to know in the spirit of his work.

J. Leo Fairbanks, (evidence that the fever to travel was contagious and spared none.) spent the summer abroad in the land, visiting the galleries of the east and doing much sketching in the spots of historic interest to the Church. His father, J. B. Fairbanks, is still in New York, copying famous paintings under his Utah county commission. HAFEN'S SUCCESSES.

And Hafen, who many of his friends believe has permanent fame awaiting him as a national figure in American art, has had his first chance this summer at an eastern exhibit. How the people thronged the Marshall Field building in Chicago, to see his gallery hangings, and how the Chicago papers stated that this was the best collection yet hung there, has already been told as has also been the Item of his winning first prize for landscapes from the Illinois state fair. His Boston exhibit, long the goal of his years of work in Utah, is a promise of this winter and next spring, and when the results from it are fully totalled something of Hafen's ability to impress those whose estimates are what prevail in art criticism will be known.

Locally, in a community way, progress has been decisive all along the line. An art audience is beginning to be created. Five years ago, when this page was first introduced in the Christmas News, its readers were thought to be only a fraction of those depended on to glance through it now. The state fair has answered a public demand by erecting a spearate art building. Soon it will answer another by seriously changing the system of making awards. That extensive dissatisfaction both to artists and the public exists over the present system is an open secret. Next year it is probable that an effort will be made to abandon the system of announcing prize winners, unless a new plan can be hit upon of selecting them. A certain friction between the "school-teacher" portion of the profession and the working "studio" portion seeps into the judgements in well aimed flings to the effect that "no reward is made in Department X., because of the inferiority of all the paintings offered." The vogue for this sort of thing is several years old. It has expressed itself too often in certain directions to be longer thought the judicial utterance of capaple discrimination, and angered artists are bringing to their ald an aroused public opinion that fails to support the present judge system. How long it will survive its accumulating

hostility is one of the interesting questions for the future to decide.

From Cache valley has come at least one thoroughly capable artist in the person of A. B. Wright, whose portrait of Président Anthon H. Lund, done under commission of the Agricultural college, was prominently hung at the October fair. It is now at the college, where it is permanently to remain.

Harry Culmer has followed 'dis excursions into San Juan county after its scenic wonders, by another into the Teton and Jackson Hole countries where the continental divide twists about in a picturesque way offering unexcelled art opportunties. Some examples of his Wyoming work appear above, his canvases in this field being the result of a summer's vacation spent at work with a sketch book and pencil.

Tresult of a summer's vacation spent at work with a sketch book and pencil. How many states own a group of paintings by its native sons, brought in a competitive annual exhibit for the express purpose of attesting the state's interest in its art workers? Utah's collection grows each season and besides gaining a picture a year, the collection is utilized to give all the people of a state an opportunity to see what is being done in art through the holding of the exhibit of the state institute established Utah art in various localities. This year Richfield housed the exhibit, and the picture winning the state prize was added to the state's "Alice art collection" in consideration of \$300 awarded to the winner. The group of which it becomes the 8th member is composed of work from the following ratists: J. T. Harwood 1899. "Salt Crusted Rocks."

J. T. Harwood, 1899, "Salt Crusted Rocks." John Hafen, 1909, "Quakingasps." Mary Teasdale, 1901, "Woman and Child." George Taggart, 1902, "Old People in Church." A. B. Wright, 1904, "Portrait of Miss R." Edwin Evans, 1905, "Cows in the Shade." Mahonri M. Young, 1906, "The Blacksmiths." lumbermen and fire; the forage practically rulned and with it the livestock industry, the watersupply reduced, the wild game killed and the use of the mountains for recreation purposes taken from the people.

As it is however, the ownership of these forests and mountain ranges is retained by the people and these great resources, wood, water and forage, so intimately connected with the life of the western people will be used as they direct. For the forests are created for the benefit and protection of the communities dependent on them and it is the duty of the forest officers to so administer and manage them that these ends be attained.

ORGANIZATION OF FOREST SERVICE.

In this connection I would like to explain the organization of the forest service and the duties and work of the various officers.

The forest service of the department of agriculture was created by the act of Congress, of Feb. 1, 1905. It is supported by annual appropriations of Congress and at present the administration of the forests cost about \$2,400,000 which sum is entirely inadequate to furnish the care and protection necessary to a satisfactory management.

The policy of the administration and management of the forests and general control of the work centers in the Washington office. The officers consist of the Forester, Mr. Gifford Pinchot, Associate Forester Mr. O. W. Price, and Assistant Forester James B. Adams Chief of Operation A. F. Potter, Chief of Grazing W. T. Cox, Chief of Timber Sales and Forest Planting William L. Hall, Chief of Products, and P. P. Wells, counsel. The field or executive force consists of six district foresters each in charge of the forests of a single district, the headquarters of which are located in Missoula, Mont; Denver, Colo; Albuquerque N. M.; Ogden, Utah; San Francisco, Cal., and Portland, Oregon. Each district forester has an assistant, and chiefs of the several departments, operation, grazing, timber, labor and forest planting, claims and special uses and forest products. Then each forest is in charge of a supervisor, who is the manager of this forest, and who is assisted by a deputy supervisor, a technical assistant, rangers and guards.

UNDER CIVIL SERVICE.

The whole force, outside of the forester and assistant forester, is under the civil service and an examination must be passed before a person can obtain an appointment. Residents of the states in which a forest is located are given preference,

District 4, with headquarters at Ogden, Utah, covers the forests in Utah, the Arizona strip, Nevada, southern Idaho and western Wyoming.

This office was established on Dec. 1. Mr. Clyde Leavitt, formerly chief of organization, in the Washington office, and who has had a wide experience in the western states, is the district forester. Mr. F. W. Reed formerly chief inspector and thoroughly acquainted with conditions throughout the district has been selected for Mr. Leavitt's assistant

By this scheme of organization it is felt that much better work can be done than was the case with the executive officers in Washington, for it permits a user of the forests to carry an appeal in person from a supervisor's decision, to the district forester and allows the general officers to get in close touch with local conditions.

> - R. E. BENEDICT, General Inspector.