

proper sizes and floated down through a V-shaped flume from the mill to the railroad, sixty-two miles away. This flume is supplied by a large reservoir in the mountains. Although when dry the Sequoia is one of the lightest of American woods, it is very heavy when full of sap, and will not float readily until it is seasoned, so that the timber needs to lie some time before it is floated out of the mountain. The lumber looks very much like redwood, and is sold under this name. Indeed, it is only distinguished from redwood by the eye of an expert.

This particular tree was called "Mark Twain," and girthed sixty-two feet at eight feet from the ground and ninety feet at the surface. It was a straight, handsome tree some three hundred feet high, and without a limb for about two hundred feet from the ground. Mr. Moore estimated that it contained four hundred thousand feet of lumber, and the specimen cut, four and a half feet long, weighed over thirty tons. It took two men about three weeks to cut it down. The axemen chopped out deep notches on the opposite sides of the tree, leaving a comparatively narrow strip through the centre untouched. A notch was then cut at one end of this centre-piece on the side toward which the tree was to fall . . . Two long cross-cut saws were then welded together and the workmen began to saw in horizontally opposite the cut last mentioned, and wedges were driven in until the tree toppled over . . . [The illustration] gives some idea of the size of the tree at the ground. Fifty men of the Lumber Company's force are here seen standing out on the sap-wood and bark of the stump, and the tools with which the giant was overthrown lie in the centre, where there is easily room for a hundred more men. Of course, the butt of the log that fell was sawn off above the bevel made by the axes, and in a plane perpendicular to the axis of the log, so that the bottom of the specimen in the museum represents a cut about ten feet from the ground. A section of the log next above this has been secured as a specimen for the British Museum.

Every lover of nature must be rejoiced at the fact that the National Government has taken possession of several of the most extensive groves of Big Trees that remain in California, so that they cannot pass into private hands and be turned into lumber, a fate which has already befallen so many of these oldest and noblest inhabitants of our mountain forests.

[Editorial. *Garden and Forest* 5 (1892): 541-542]

THE FORESTS OF THE NATIONAL DOMAIN.

THE small company of forward-looking people who, in the face of almost universal apathy, had been for years urging the necessity of some rational system of management for the forests on our national domain, felt greatly encouraged ten years ago when President Arthur was moved to mention the subject in one of his annual messages. We have no systematic forest-policy yet, not even the beginning of such a policy, but we are no longer surprised or unduly elated over the fact that men in places of high authority consider the matter worth talking about, at least. President Cleveland, like his immediate predecessors, in his message to Congress, which assembled last month, strongly advised that some adequate protection should be provided for the areas of forest which had been reserved by proclamation, and he also recommended the adoption of

some comprehensive scheme of forest-management. He condemned the present policy of the Government of surrendering for small considerations immense tracts of timber-land which ought to be reserved as permanent sources of timber-supply, and urged the prompt abandonment of this wasteful policy for a conservative one, which should recognize in a practical way the importance of our forest-inheritance as a vital element of the national prosperity.

The House of Representatives, too, has taken prompt action upon Mr. McRae's bill, entitled, *An Act to Protect Public Forest Reservations*. The provisions of the bill are simple. It authorizes the employment of the army to patrol these reservations, as has been done effectively in the Yellowstone Park and in the Yosemite Valley, and it empowers the Secretary of the Interior to make regulations in regard to their occupancy, to utilize the timber of commercial value they contain, and to preserve the forest-cover from destruction. It also empowers the Secretary of the Interior to cut and sell timber on non-reserved lands under the same rules as those made for the forest reservations, provided that it shall be first shown that such cuttings shall not be injurious to the public interests. The bill had some unfortunate features, but any system which regulates the use of public timber is better than the indiscriminate plunder that has been going on hitherto, and the authorization to use the military for protective purposes is altogether commendable. The bill was amended, however, to strike out, if we understand it correctly, the provisions relating to non-reserved lands, and it restricts the sale of timber on the reservations to trees that are dead or mature, thus limiting skilled forest practice, instead of authorizing trained foresters to make their own selection, and, worse than all, it grants free supplies of timber from the reservations to miners and settlers.

It is to be hoped that when this measure comes before the Senate that its original features will be restored. In its present form it does little more than to expose the timber on the reservations to new dangers. . . . If military protection is assured, that is one step forward, but if such protection is made possible only when the War Department shall consider it worth while, it is a very short step, indeed. No doubt, any measure which gives the assurance of efficient policing of the reservations, or efficiently controls the cutting of public timber, is to that extent a gain, but we certainly want something more definite and decisive than the McRae bill as it now stands. . . .

[*Garden and Forest* 8 (1895): 1]

WHAT is to be the fate of forests on the national domain, and how is the much larger forest area of the country, now in private hands, to be managed in the future, are questions which, a few years ago, would have excited but trifling interest anywhere in the United States. The current issue of *The Century* magazine shows that these matters are now subjects of serious study by many thoughtful Americans. The editor of a great periodical is a good judge of what subjects are of immediate popular interest, and the fact that *The Century* not only makes a distinct proposition of its own for action in the matter of forest-preservation, but devotes ten pages to setting forth the views of persons who, from their official standing or personal knowledge, are qualified to say something

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The February "Century,"

READY FRIDAY, FEBRUARY 1st.

WILL CONTAIN

A SYMPOSIUM ON

Prof. Sargent's Scheme of Forest Preservation by Military Control,

CONTRIBUTED BY

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Cleveland Abbe,
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William J. Palmer.

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worth hearing on the subject, is an evidence that we are gradually nearing the time when indifference and lethargy in relation to this matter will give place to an active realization of the fact that the prosperity of our country is directly connected with the proper management of our forests.

Six years ago, when speaking of the nation's forests, it was urged in this journal that all forest-lands belonging to the Government should be withheld from sale until an examination of these lands, and of the agricultural lands depending upon them for water-supply, would show what tracts of timber could be put upon the market without threatening important interests in the country below them. For the protection of these forests against injury from man and beast, it was advised that, pending this investigation, the guardianship of the forests on the national domain should be entrusted to the United States Army and that this examination of the national forests should be conducted by a commission, appointed by the President, of men able to report upon the magnitude and quality of our forests, and upon their relations to other interests. No commission was appointed, however; perhaps the time was not ripe for such a plan, modest and moderate as it was; but certainly if such a commission had then been named, we should now know more about our forests than we do. In *The Century* symposium a man so well qualified to speak as Mr. Bowers, the Assistant Commissioner of Public Lands, declares that estimates of the amount of forest-land owned by the Government vary between the lowest and the highest by twenty millions of acres, which means that we have no absolute knowledge whatever. And since no one can do more than make a rough guess at the area of these lands, any surmise as to the amount of timber growing on any portion of them, or of its value, or of the ease or difficulty with which these woodlands can be made permanently productive, would be wilder still. It seems, then, that the need of a board of investigation is quite as urgent to-day as it was when the proposition was first made . . .

There seems to be little question as to the advisability of employing the army as a police force while this investigation goes on. Captain Anderson, who has been in command of the troops in the Yellowstone National Park, ought to be a competent judge in this matter, and in his contribution to the symposium it is stated that the soldiers of his command have served every purpose of a forest-guard most satisfactorily. . . . Of course, this service would only be temporary, for the time is coming when a policy, which only means mere protection of the woods from timber thieves and browsing animals and fire, must be replaced by an active system of reproductive management such as is used in other industries of this country and in the forests of other civilized nations.

[Editorial. *Garden and Forest* 8 (1895): 51]

Old trees in their living state are the only things that money cannot command. Rivers leave their beds, run into cities and traverse mountains for it; obelisks and arches, palaces and temples, amphitheatres and pyramids rise up like exhalations at its bidding; even the free spirit of man, the only thing great on earth, crouches and cowers in its presence. It passes away and vanishes before venerable trees.

—Walter Savage Landor.