

raised against the policy. Let us consider on what grounds of necessity such sweeping action may be urged.

It is almost a superfluity of words to point to the well-recognized perils involved in the destruction of forests. Humboldt said: "In felling trees growing on the sides and summits of mountains, men, under all climes, prepare for subsequent generations two calamities at once—a lack of fuel and a want of water." China, India, Cyprus, Syria, North and South Africa have been conspicuous sufferers from this folly. The decay of the political ascendancy of Spain is attributed to the same cause, and the slopes of Andalusia, even now showing only a fuzzy growth of olives, are the scene of alternate floods and drought of great destructiveness. A similar story is told by the southern border lands of Austro-Hungary, by large sections of Italy, and especially by the South of France, where, in the last thirty years, thirty-five millions of dollars have been spent to reforest hills which were devastated to pay for Napoleon's wars, though the work is but half completed. The fall in the depth of the rivers of Central Europe—from 17 to 55 inches in fifty years—bears witness to the fate in store for us unless there is a radical change for the better in our public policy. In our own country, the disappearance of the empire that once flourished in Arizona and New Mexico, and the annual overflow of the Mississippi, Ohio and Red rivers, are attributed to deforestation. That the peril is not overstated, may be seen in a volume which every American legislator ought to know by heart—George P. Marsh's treatise, "The Earth as Modified by Human Action." Forty years ago Mr. Marsh said: "A desolation like that which has overwhelmed many once beautiful and fertile regions of Europe, awaits an important part of the territory of the United States, unless prompt measures are taken to check the action of destructive causes already in operation." Let any one who has attempted to keep pace with the subject say how far this fails of true prophecy—the prophecy which Mr. Froude thought an essential test of science. Expert authorities have gone so far as to fix twenty-five years hence as the period of virtual exhaustion of the timber supply at the present rate of depletion. It is not merely the intemperance of the axe with which we must reckon. Eighteen centuries ago the poet Horace warned his countrymen against exposing forests to the havoc of sheep—a warning which has come down the ages almost unheeded. Last of all, in this country, in the trail of both lumbermen and shepherd, more destructive than the edge of the axe or the spade of the sheep's hoof, comes the conflagration. One did not need the object lesson of the recent forest fires in the North-west, to realize that the public domain is daily exposed to a similar danger. Ride along any railway in the North-west and you may read the story in a record of blackened stumps or overhanging smoke. Not a summer passes without news of raging fires upon Government lands. The only wonder is how they ever cease. And yet with all this constant ravaging of the forest, our easy-going people do not realize the critical situation of the great West. Worst of all, the West itself does not realize it.

Statutes are not often enacted by Congress until the need for them is formulated into something like a truism in the public mind. Therefore, it needs to be reiterated to tediousness that the mountain forest has a more vital service to render than even its important function of furnishing timber. It is a source of life and health to the regions below. Its relations to agriculture, commerce, climate and social life, are most intimate and fundamental. "It may be considered as established," says Marsh, "that forests tend to mitigate, at least, within their own precincts, extremes of temperature, humidity and drought." Speaking of the electrical influence of trees, he observes that hailstorms, which appear to be always accompanied by electrical disturbances, "are believed in all countries particularly exposed to that scourge, to have become more frequent and destructive in proportion as the forests have been cleared," and he cites that one joint stock insurance company in Northern Italy, during seven years (1854-61), paid 6,500,000 francs for damage by hail. The influence of trees as a protection against malaria and as shelter to ground to the leeward, is also considered worth mention by Marsh, in whose judgment the climatic influence of their destruction has been of the largest importance, especially in Southern Europe.

In one significant respect the cause of forest reservation has indirectly made progress in Congress—in the grant at the last session of 1,000,000 acres of arid land to each of a num-