

NOTE

future supply. In the perfected use of our resources, when private holdings have been cut over, and we turn for our lumber to Government reserves, all the full-grown mature trees will be harvested. The forest itself will be preserved, both as a watershed and as a growing and perpetual supply, but it must necessarily change its character. The big trees will all be gone; *and never more will they be seen again.*

A moment's figuring will show why this must be. Suppose an acre of forest land will produce 40,000 board feet. In a virgin forest this amount will be comprised in say three or four huge trees four hundred years old. The trees are cut down: a new growth springs up. At the end of eighty years there may be twenty trees cutting 2,000 feet apiece. At one hundred years five of the twenty will have died from overcrowding, but the fifteen remaining will have made sufficient growth to maintain the total at about 40,000 feet. From this time on the rate of increase is just about balanced by the rate of thinning. Purely as a commercial proposition it is better sense to cut the twenty smaller trees at eighty years than to wait for the three or four big ones; to harvest five crops in the length of time necessary to grow one of the old-fashioned sort. In the conserved National Forests no more than in the wasted and slashed private holdings can the future hope to look upon the great sugar pines and firs in the glory of their primeval majesty.

The only hope of that is in setting aside national parks for their preservation, as we have set aside national parks for the preservation of other things, such as geysers, battlefields, cañons, sequoias, and grass. In some of these numerous reservations, particularly in those dedicated to the so-called Big Trees, necessarily grow many specimens of the various pines and firs. But they are only specimens. To preserve intact the dignity