

SOME MOUNTAIN TREES.

The Conservative acknowledges the receipt of an interesting letter from that staunch friend of forestry, John P. Brown, who, when traveling, ignores none of the feasts which nature furnishes for the appreciative eye. Here are a few of his Rocky Mountain notes:

"There are some excellent bodies of Ponderosa Pine on the eastern lower slope of the Sangro De Christo range, and, on the higher mountains, considerable Red, White, Douglas and Silver Spruce, and Concolor, that beautiful Silver Fir, in moderate quantities, varying in shade from deep green to silver tip.

"The Foxtail Pine—Aristarta—which I had taken for a spruce—is on the highest line of timber, and is a most beautiful tree, which in 1866, I saw first in Nevada.

White Pine and Aspen.

"The White Pine of the Rockies—*P. Flexilis*—is seen on the higher mountains, and immense tracts of Aspen—*P. Tremaloides*—covering as they do entire mountain tops and extending well down into the cañons, seem to me to be totally unappreciated. This tree grows in thickets, I estimated 1,000 to the acre, for a square mile in extent. Some are very large, being 16 to 18 inches in diameter, and I measured one 90 inches in girth and sixty feet high, but usually the trees in thickets are 4 to 8 inches in diameter—a clear illustration of the folly of over-crowding, for where there was sufficient room the trees were large and sturdy. The aspen makes excellent lumber, does not change, weather, check nor warp and is equal in every respect to yellow poplar for furniture purposes. It is white in color, easily worked, and when dry, durable. No other deciduous tree grows at the altitude of aspen. Lower down the valleys it meets the narrow-leaved cottonwood, both growing together, both disappearing in the still lower valleys where the broad-leaf cottonwood, *Monifera*, occupies the moist lands. Low growing birch and several willows are also found along the valleys, and pinon and cedar here and there not nearly so thickly as would be desired.

To Repair Man's Ruin.

"Most of the lands, available for lumbering, have been cleared of every tree.

To re-afforest such extensive tracts will be a gigantic undertaking. By far the more certain, economical, and, of course, the quicker method would be to save the young growth, which in all mining regions is relentlessly sacrificed for shaft timber and fuel.

Scrub Oak as a Nurse.

"I made some photographs of the

scrub oak—*Quercus Umbelatte* and *Gambelii*—which grow only 6 to 20 feet in height and are very thick on the ground. The acorn, being grown into a strong shrub, sends its roots laterally, and from these spring up numerous shoots which form a dense thicket, browsed by the cattle in winter and by goats and sheep at all seasons.

"The roots often become six inches in diameter, while the stems are only an inch or two in thickness, so, as a commercial timber it has no value, yet upon this insignificant scrub growth must we depend for aid in re-afforestation, as it is a splendid nurse, the seeds of coniferous trees—where there are any large trees to supply them—lodge beneath these lowly oaks, are covered by and find a soil in these decayed leaves. Animals browsing around this nursery are to a certain extent kept away from the little pine and spruce, while the slight shade of the nurse protects them from the rays of the sun.

"Sowing seeds of conifers among these oaks—providing stock is kept away—will in a moderate season reproduce the Rocky Mountain forests.

The aspen is also a grand nurse, but is a murderer in case of fire. Growing on more elevated mountains, spruce and high-line trees are found, as the pine and cedar grow among the oaks.

Spoilation and Irrigation.

"The people of the arid portion of the land ceaselessly balk irrigation. Nothing has so great a value in the minds of all the west, yet continue to burn off all the trees, spoliating the lands, make mine timbers of baby spruce and pines, and all the wealth of this great government cannot cause rain and snow to fall and be protected from rapid melting and waste.

"Irrigation will be an automatic all-season matter, if the dwellers of these mountains will let the forests alone, keep the stock within bounds and help nature plant and rear other trees to replace those destroyed.

URGE A FOREST RESERVE.

The Nebraska delegation in congress, after a thorough canvass of the situation, has prepared a letter to be presented to the president, urging upon him the importance of setting aside a large number of acres in the sandhill regions of Nebraska for forest reserve purposes. They believe that the sandhills will grow timber and they are especially anxious to have the experiment tried. The letter to be submitted is exhaustive in character and will, it is expected, be signed by the entire delegation. The letter reads:

To the President: For the last ten

years the belief has been growing among those familiar with western conditions that the region known as the sandhill district of western central Nebraska can be economically forested and that it will produce timber of commercial value to Nebraska and adjoining states. The opinions of persons of long practical experience in that region coincide so unanimously with the opinions of experts who studied the conditions from a scientific standpoint, that in 1894 the recommendation was made in a paper read by Prof Charles E. Bessey before the state board of agriculture, that the national government reserve extensive areas in the sandhills for forest planting.

The recommendation became a subject of discussion, especially among the friends of forestry, and gradually grew in favor. During the last year the matter has received much consideration and has been generally approved by the people, the press, and the officials of the state. It was fully discussed and heartily endorsed by the state horticultural society, both at its summer and winter meetings.

Investigation Supports Theory.

A year ago the recommendation for such forest reserves was brought prominently to the attention of the bureau of forestry of the department of agriculture by letters from a number of leading men in the state. The matter was at once taken up by the forester and a thorough investigation was made in the summer of 1901, to ascertain the adaptability of the sandhills to timber and to determine the advisability of establishing reserves for forestation in the region in question.

The conclusions of the bureau of forestry, as expressed in the accompanying manuscript on "Proposed Forest Reserves in the Sandhills of Nebraska," are in full accord with public opinion: First, that the sandhills can be economically forested second, that they would be more valuable for forest than for any other purpose; third, that suitable reserves should be set aside by the government for a systematic and orderly attempt at forestation in that region.

Maps have been prepared in the bureau of forestry which show the location and area of government land in the sandhills, and thus disclose the fact that large tracts practically free from private claims are available for such reserves. In addition, the forester, at our suggestion, has proposed and submitted boundaries for three forest reserves in as many localities in the sandhill district. These reserves are described in the accompanying manuscript on "Names and Boundaries for Proposed Reserves," and include an