

Forest Protection Progresses

COMPILATION of the season's experience by the Pacific Coast patrol associations are taking final form and make a remarkable showing for their protective systems when it is considered that 1914 was an abnormally dry year. The Northern Montana Forestry Association represents 1,000,000 acres and handled 40 fires of consequence with but 640 acres burned over and an actual timber loss of but \$192.

Western Washington had 72 days without rain. The Washington Forest Fire Association had 140 patrolmen, who with state and Weeks Law men made a force of 205 in the western part of the state outside the national forests. About 1,000 extra men were employed in fire fighting. There were 345 fires requiring attention, but prompt and systematic action prevented any destruction worth mentioning. The only serious fire of the season was in May, before the patrols were on, when

4,135,000 feet were lost in Clallam County and considerably more fire killed which will probably be logged.

It is thought that not to exceed 30,000,000 board feet of green timber was destroyed on private holdings in Oregon. Damaging fires occurred in only a few localities and even in such places they were largely confined to old burns or slashings. Expenses for fire fighting were of necessity high in many localities, and patrol costs were also increased as a result of the long dry spell. The year may be well compared to 1910 for although the 1914 drought extended over a period of 74 days as against 57 in 1910, the former year more dry winds were experienced. The loss of only about thirty million board feet of green timber in 1914 as compared with a billion board feet in 1910 measures the step taken in Oregon along lines of forest protection.

Use of Wood Stave Pipe

THE District Forester at Portland, Oregon, announces that his office has recently undertaken a study of the wood stave pipe in Oregon and Washington.

A study of the wooden pipe, national in its scope, was begun some time ago by the Forest Service at its Madison, Wisconsin, laboratory. The local study is a part of the program as outlined by the laboratory. Its purposes is to gather information upon the serviceability of wood stave pipe for conduits, as compared with iron, steel, concrete, and other materials. A circular letter is being sent to all wood pipe users in Oregon and Washington, asking in regard to the kind of wood used, size of pipe, details of construction, length above ground and buried, character of soil, water pressure, advantages and disadvantages, and causes of failure. It is expected that this study will bring out the full limit of efficiency of the wood stave pipe, or in case of failure, reveal methods whereby such failure may be avoided.

The use of wooden pipe to conduct water dates back to a very early period. There is a tradition that the Romans used it in their water works. In more modern times, it is known that the first water company in London, organized in 1618, supplied water to a part of the city through wooden pipes. In this country, wood pipe was installed in

Philadelphia in 1800, and to this day this old pipe, when dug up, is found to be in a remarkable state of preservation. Later cast iron and steel began to take the place of wood, especially in communities near the centers of the iron and steel industries. Within the past five or ten years, however, the wood pipe industry has received a new impetus, and you will now find wooden pipes in all parts of the country, notably in the West. In fact, it has invaded even the iron and steel centers, one striking instance being that of one of the largest iron and steel companies itself. Some of the advantages already claimed for wood pipe are that it is preserved by water rather than rusted or corroded, it is not affected by frost, it requires less labor and experience to lay it, and it is cheaper.

The wood stave pipe recently laid at White Salmon, Washington, holds the record for size, being a mile in length and thirteen and a half feet in diameter! While there are not as yet many wooden pipes in Oregon and Washington, this study is of especial interest to this section because of the fact that most of the wood of which these pipes are made is supplied by these two states. Several woods are used, but Douglas fir is one of the best for the purpose. Pipe factories in Portland, Tacoma and Seattle are shipping this product to all parts of the United States and Canada.

FOREST NOTES.

BECAUSE of drouth conditions there is considerable fire danger in the forests of the east this fall.

Pennsylvania and New Jersey lead all other states in the quantity of wood used for making tobacco pipes, and utilize apple wood, French brier, ebony, birch, red gum, and olive wood.

Cherry is the wood most used as a backing for the metal plates from which illustrations are printed in magazines and periodicals. It is chosen above all others because it holds its shape, does not warp or twist, works smoothly and does not split.

The position of city forester is now offering a new field for men with a technical training in forestry. Fitchburg, Massachusetts, is one of the latest towns to secure an official of this sort.

Because of extreme drouth, the fire risks on the national forests in the Northwest have been greater this season than in any other since 1910, the worst year since the forests were created. Much less damage was done this year because experience in fire fighting was gained in the fires of 1910.

Fir is Leading in National Forests

The District Forester at Portland, Oregon, has recently completed an estimate, by species, of the timber on the twenty-eight National Forests in Alaska, Oregon and Washington.

Of the total stand of 292,594 million board feet, Douglas fir ranks first with 95,756 million feet, and is found on all but three of the National Forests—the two in Alaska and the Fremont in south-central Oregon. On account of the abundance of western hemlock timber on the two National Forests in Alaska, this species ranks second with 72,851 million feet. Yellow pine holds third place with 30,363 million feet, and is found chiefly east of the summit of the Cascade Mountains in Oregon and Washington. These three species constitute 68 per cent of the total stand under the jurisdiction of the Forest Service in these three states.

This estimate, which is only approximate and will be improved upon as opportunity offers, segregates the remaining amount of 32 per cent into twenty other species, some of which, like redwood, are found on only one or a very few of the National Forests in this region.



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