TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

No. 87

RELATIVE DURABILITY OF ROCKY MOUNTAIN AND PACIFIC COAST DOUGLAS FIR TIES.

Before the preservative treatment of ties was practised as extensively as at present, the railroad companies using Douglas fir ties held the opinion that the Douglas fir grown in the Rocky Mountains was more durable than that grown on the Pacific Coast. In some of the copper and lead mines in the Rocky Mountains the mountain fir was also considered more durable.

No authentic records are available where coast and mountain fir ties are set in the same locality. Such service records as there are, however, fail to show that the mountain fir has superior lasting qualities. In some instances the mountain fir and in others the coast fir has proved more durable.

Botanically there is no difference in Douglas fir according to the locality in which it grows. Tests made by the Forest Products Laboratory, Madison, Wis., indicate that Pacific Coast fir is on the average somewhat denser and therefore stronger and harder than mountain fir. However, the parts of coast timber usually cut into ties are boxed hearts or wood cut near the piths or from the tops of trees. These are the poorer parts, and coast fir ties therefore generally contain no better wood than mountain fir ties.

The conclusion of the laboratory is that there is practically no difference in the durability of Douglas fir ties cut in the mountains and those cut along the Pacific Coast. It has been observed, though, that the latter receive preservative treatment a little more readily than the former.