



IMPROVED HARVESTING METHODS

EQUIPMENT SURVEY NOTES

PORTABLE SPARS

Three types of portable spars have been observed on relogging jobs in the Northwest. These are (1) timber A-frame, (2) hollow steel pole, and (3) fabricated steel tower, all of which embody ingenious features.

The timber frame is built of two squared timbers fastened together at the top with a steel yoke to which the guys and blocks are fastened (fig. 1). Bracing and ties between the A-frame members provide stability for the spar, which is mounted on skids in such a way that it can be raised and lowered. In setting up, the spar is raised to a steep angle, the guys put in place, and then the skids pushed forward with a bulldozer to straighten the spar and tighten the guys. A tractor donkey is driven on the skids and cables hooked up completing the setup (fig. 2). This unit was developed by the Simpson Logging Company, Shelton, Wash.

The hollow steel pole spar is mounted on a short-4-wheeled trailer (fig. 3). A single pneumatic tire supports the end of the spar during transit. When the spar is raised a clamp at the top of the trailer frame holds it in place while guys attached to a ring at the top of the spar are anchored and tightened (fig. 4). The skidding cable passes under a pulley built into the bottom of the spar, thence up through the hollow spar. A truck-mounted diesel yarder is used with the spar assembly. It was developed by the Soundview Pulp and Paper Company, Everett, Wash.

The fabricated steel tower has the power unit and spar combined. Base of the unit is a crawler tractor, with donkey attached, upon which is built a framework, including a platform directly over the tractor. This platform supports an auxiliary motor coupled to 4 cable drums used for tightening the guys (fig. 5). The tower is pinned to the top of the above assembly so that it can be removed. It consists of two sections pinned together so that the top one can be lowered during short moves. A cantilever arm facilitates raising and lowering the top section (fig. 6). Guy tightening cables are attached to the top of the tower and run out through a block to which the guy is attached (fig. 6). The tightening cable then passes from the block to a pulley in the top of the tower, thence down through the tower to the guy-tightening drums. This unit is used by the Crown Willamette Company on their Seaside, Wash., operation.

Whether or not any of the ingenious features of the above described spars are patented is unknown. However, additional information can be obtained from the companies that developed the units.

Although these spars were built for West Coast conditions, they were designed for relogging where size and volume are smaller than the original timber. Therefore, it appears that these units may have application in other regions, especially the swamp areas of the South.

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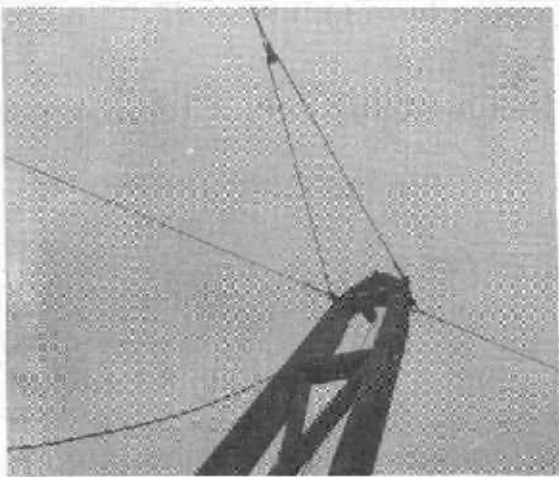


Figure 1.--Top of spar showing steel yoke blocks and guys.



Figure 2.--Portable timber spar.



Figure 3.--Steel pole spar mounting



Figure 4.--Steel pole spar, mounting, and donkey.

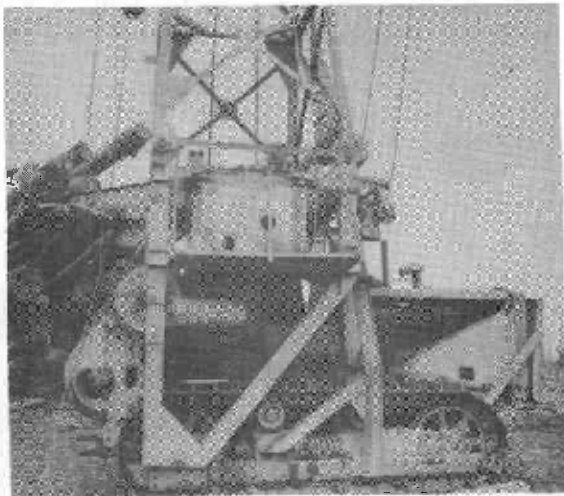


Figure 5.--Tower mounting for portable spar.

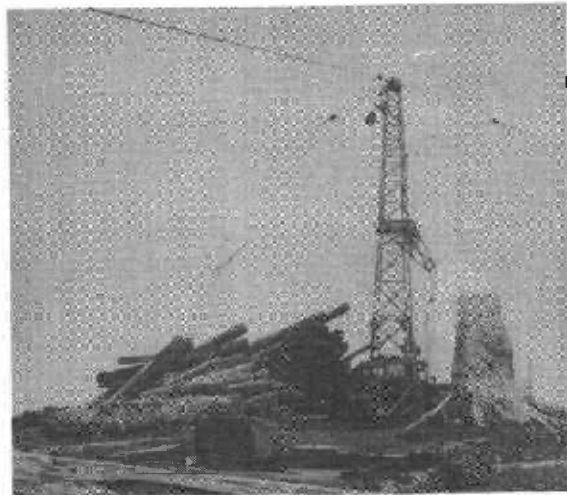


Figure 6.--Portable steel tower skidding unit.