

The trucks on these machines are standard type of journal boxes, with four or six wheels each as the condition of railroad may require. The wheels are 24 inches in diameter with deep flange and wide tread.

Two steel booms are mounted on the front end of the Universal, one for skidding and the other for loading.

The skidding boom legs are fitted with swivel connections at the lower ends. For ground skidding the upper end of the boom is fitted with the CLYDE standard structural steel flexible boom head to relieve the machine from shocks and vibration.

The skidding boom head on the cableway Universal is cast steel fitted with sheaves and supports for the main trolley cable and all blocks necessary for operation. The main trolley cable passes over a sheave or roller supported by a swivel bracket on the top of the boom head, so that the boom supports the trolley cable in a vertical line only.

The loading boom is structural steel, placed in front of the skidding boom and supported with a cable leading from the peak to the skidding boom. The loading boom is the CLYDE swinging type or rigid "A" frame as required. The swing-

ing boom is actuated by steam cylinder and controlled with knee lever valve in easy reach of the engineer.

The distance of swing is sufficient to clear the car on either side.

The cab is structural steel, skeleton type with sheet steel panel at top and bottom of the sides, and sheet steel hood over boiler.

In setting and operating the Universal the same plan is pursued as with independent ground or cableway skidders as the case may be.

If cars should not be available the skidding may continue uninterruptedly and the logs decked at the track for loading later.

The train of empty cars is passed through the machine to the rear when brought out with the locomotive, and spotted for loading with the spotting cable on the machine as required. This does away with jacking up on spuds or building spur tracks at the side for the machine to stand on. Its self-propelling and quick moving features make it practical for short moves so that all logs may be brought to the track at the most convenient point and with shortest possible haul.

