

centre, and is braced transversely on the shore or anchor end, but with no lateral bracing on the channel span where it is held with an end brace frame. This leaves a clear aperture sufficiently large that the log may be dropped through. This bridge is swung across the channel by

logs and travelling carriage rest on the shore end, and in this position the bridge is racked across the channel. The winch carriage is then centered over a log by its lateral motion, and by means of the winch the log is raised sufficiently to clear the floor. The travelling car-

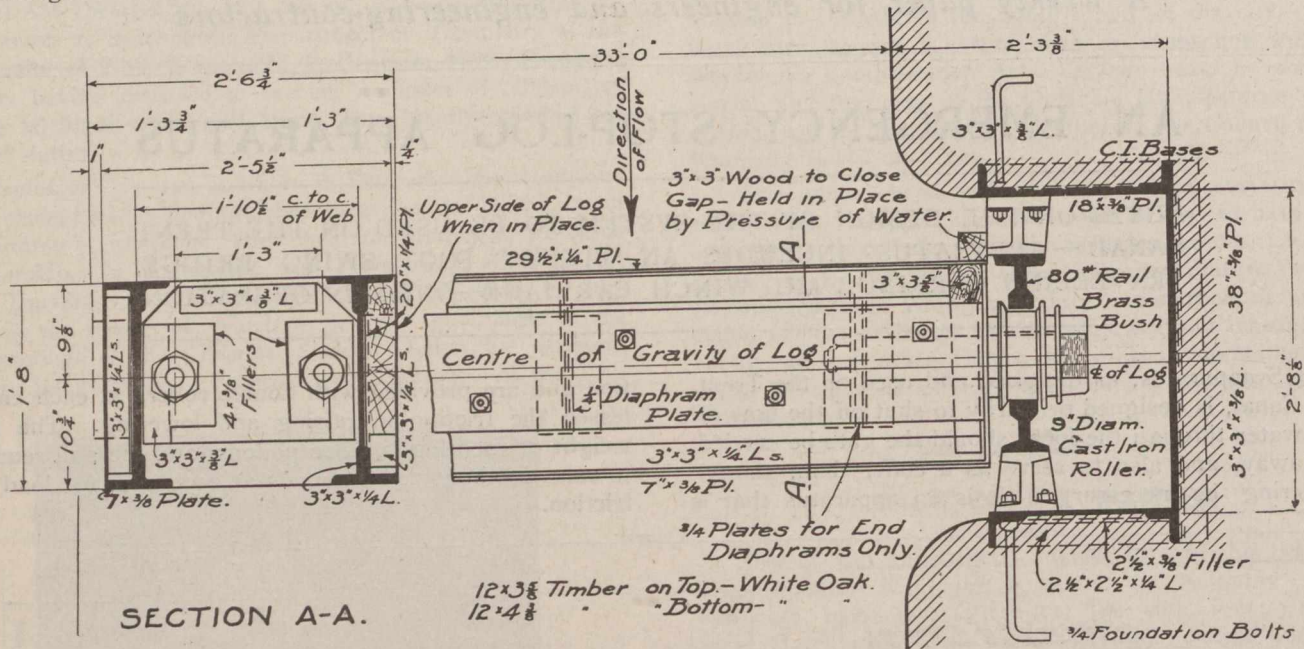


Fig. 4.

means of a rack and pinion gear, as shown in the figure, and automatically locks into place.

Rails are laid on this bridge on a 10 feet 6 inches gauge, and on these runs the travelling carriage, which can be run from one end of the bridge to the other by a crank-actuated mechanism. It is composed of two 12-inch I-beams at 31 1/2 pounds, end braced.

riage is then run across the bridge to the automatic stop, the winch carriage again centered over the stop-log check, and the log lowered. This process is repeated until four logs are lowered and all flow stopped.

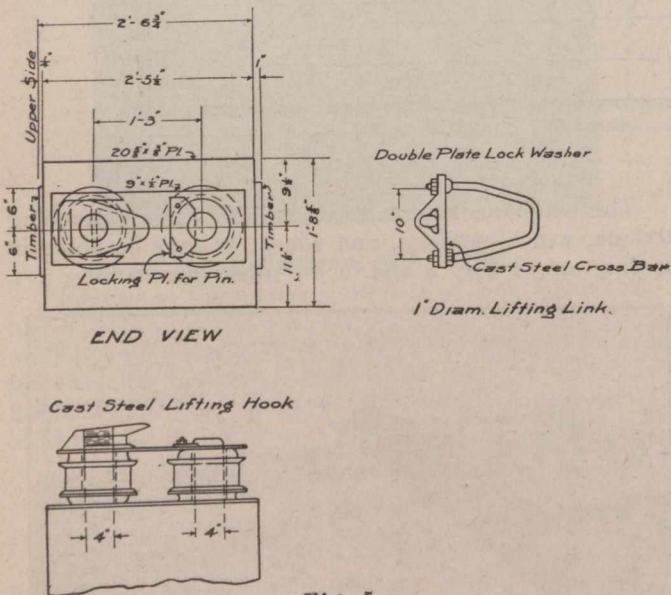


Fig. 5.

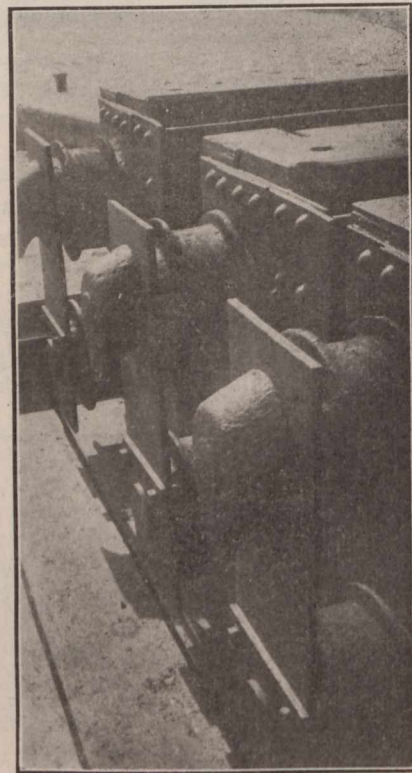


Fig. 6.—Detail of Ends of Logs on Bridge.

On I-beams fastened transversely on the ends of the travelling carriage the winch carriage runs. This carriage is made up of two built-up girders of 1/4-inch plate and two 3-in. x 3-in. x 5/16-in. angles, and moves laterally the width of the travelling carriage. This carriage supports the winch. The method of operation is as follows: In its normal position on the upper entrance wall the four

The whole operation can be performed by one man, but quicker gears are provided to be used if more men are available. As the majority of the reaches are of considerable size, both above and below the locks, speed in