

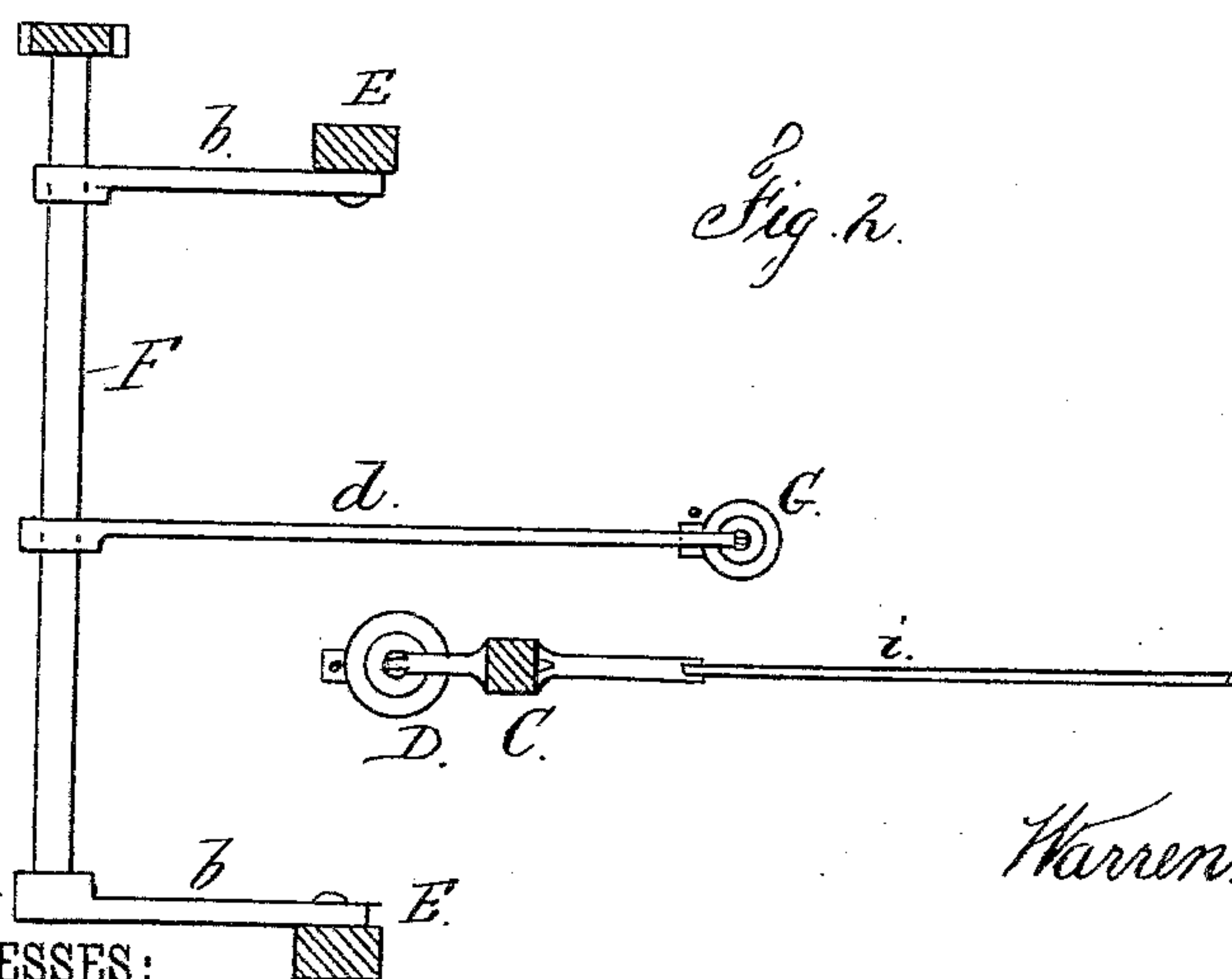
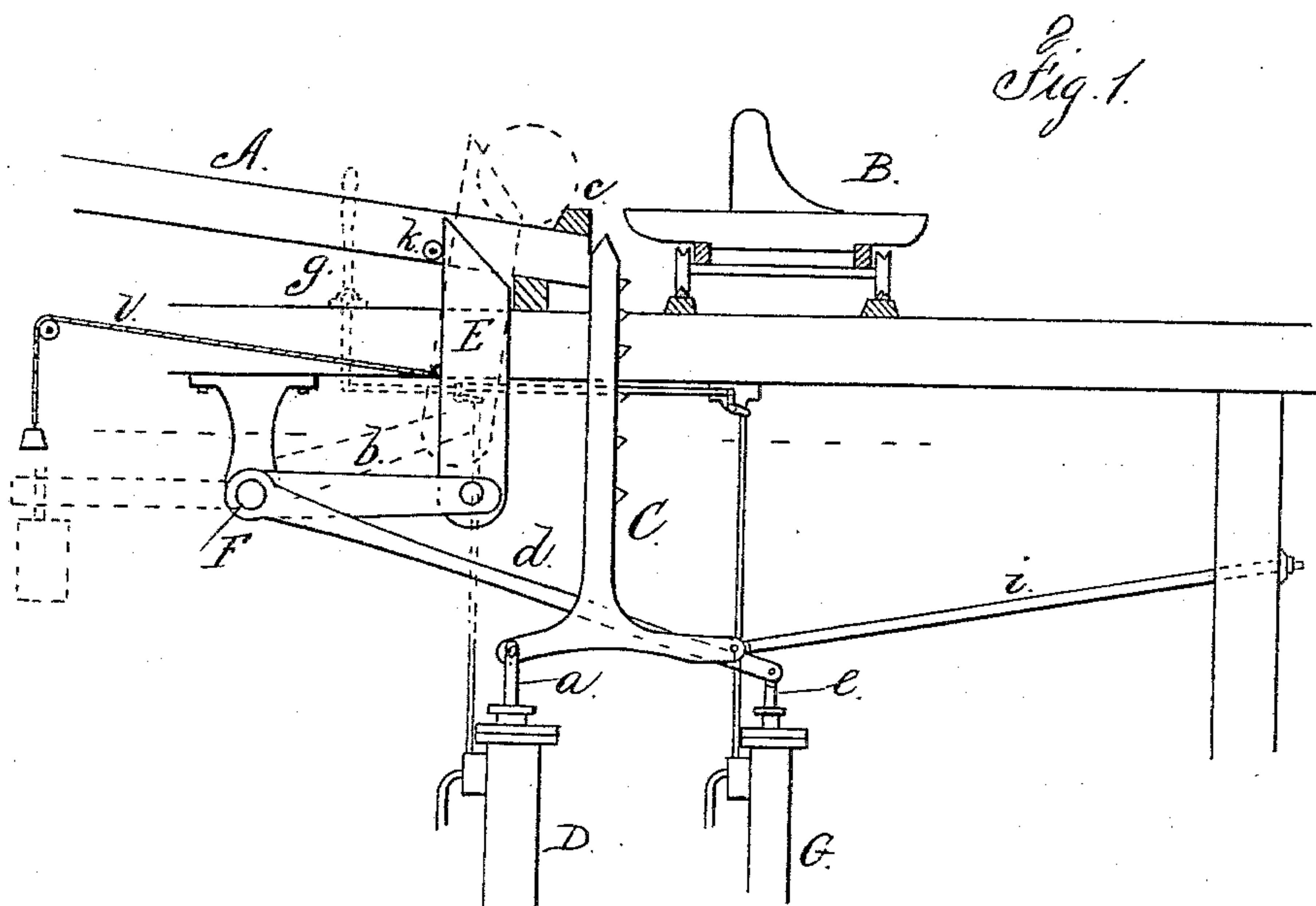
(No Model.)

W. C. STETSON.

LOG LOADER AND TURNER.

No. 300,405.

Patented June 17, 1884.



WITNESSES:

E. M. Remyan
G B Coffin

Warren C. Stetson

INVENTOR

BY *Geo. D. Walker.*

ATTORNEY

UNITED STATES PATENT OFFICE.

WARREN C. STETSON, OF MINNEAPOLIS, MINNESOTA.

LOG LOADER AND TURNER.

SPECIFICATION forming part of Letters Patent No. 300,405, dated June 17, 1884.

Application filed November 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, WARREN C. STETSON, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Improved Apparatus for Rolling and Canting Logs, of which the following is a specification.

My improvements relate to apparatus employed in saw-mills for rolling logs upon the carriages and for turning or canting them into position. Heretofore a toothed bar or bumper has been used, fitted for moving vertically and for being swung back to receive a new log; but this, when moved by steam, is apt to be swung back so quickly as to cause a blow and the breakage of the bar.

The object of my invention is to obviate the difficulties named in connection with the use of a single bumper; and it consists in the arrangement and combination, with the bumper for turning a log on the carriage, of a second bumper or bar, and a steam-cylinder for operating the same to carry or roll the log from the deck to the carriage, and of a rock-shaft and crank-arms for causing the required movement of the bumper, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, in which similar letters of reference indicate the same parts.

In the drawings, Figure 1 is a side elevation of my improved apparatus, and Fig. 2 is a sectional plan view of the same.

A is the log-deck, and B the carriage, of usual arrangement.

C is the toothed canting or turning bumper, fitted for vertical movement at the side of the carriage for turning a log thereon, so as to bring the log into position for "slabbing."

D is a steam-cylinder, having its piston-rod *a* connected to the bar or bumper C, for operating the latter.

E is the bumper or bar for rolling a log from the deck to the carriage. This is hung on the end of an arm, *b*, of a rock-shaft, F, so that the bumper E is sustained with its upper end on about the level of the deck A, and behind the stop *c*, that retains the logs upon the deck. A guide-roll, *h*, is provided for the bumper to work against, and a rope, *l*, passes from the bumper over a sheave, and carries a weight for drawing the bumper to an upright position.

From the shaft F a second arm, *d*, extends

to the piston-rod *e* of a second steam-cylinder, G, and the arm *d* is jointed to the rod *e*, so that when the piston is raised the movement is communicated through the shaft F and arm *b* to the bumper E, and the latter thus pushed up. The upper end of the bumper E is beveled, and this beveled end taking beneath and at the side of the log, the upward movement of the bumper carries the log over the stop *c* and rolls it onto the carriage. The bumper, in rising, is caused by the crank-arm to assume the position shown by dotted lines, so that it acts to push the log forward as well as raise it. This motion allows the log to be moved with less power and without shock. After the log has reached the carriage, it can be turned by operation of canter C in the usual manner.

The steam-cylinders D G are provided with valves of any suitable character and arrangement, and a lever, *g*, extending to a convenient position for operation, is used for moving the valves to admit steam to either cylinder, as required. By thus using a second bar or bumper and operating it by means of a rock-shaft and crank-arms, the only movement required to be given to either bumper is in the direction of their length, thereby avoiding any liability of shock or breakage, and the arm connected to the piston *e* being much longer than the arm *b*, that carries the bumper E, the latter is given a slower and more powerful movement.

The shaft F may be counterbalanced by an arm and weight, as shown in dotted lines.

The beveled end of bumper E may have teeth, or be fluted, so as to prevent its slipping on a smooth or icy log, and to insure the required rolling movement.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In log rolling and canting apparatus, the combination and arrangement, substantially as described, with the canting-bar C and its operating mechanism, of the sliding bumper E and its operating steam-cylinder G, arranged for independent operation for carrying a log from the deck to the carriage, as specified.

WARREN C. STETSON.

Witnesses:

W. H. PLACE,

M. F. NOONAN.