(No Model.)

L. T. KLINE.

LOG ROLLER.

No. 278,022 Patented May 22, 1883.

Fig. 1.

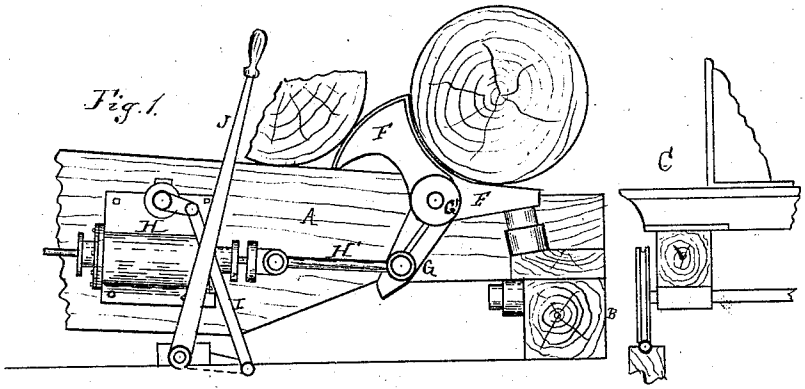


Fig. 2.

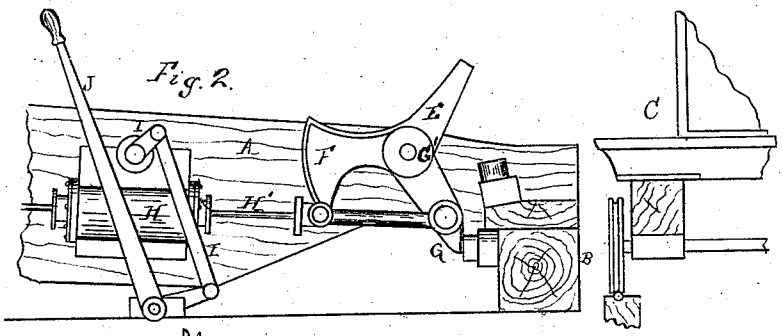
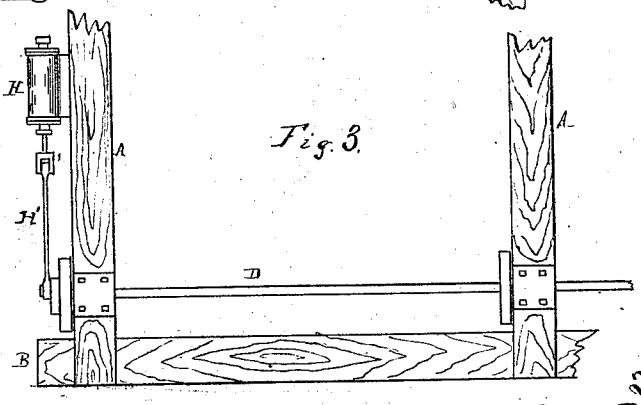


Fig. 3.



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UNITED STATES PATENT OFFICE.

LEWIS T. KLINE, OF ALPENA, MICHIGAN.

LOG-ROLLER.

SPECIFICATION forming part of Letters Patent No. 278,022, dated May 22, 1883.

Application filed February 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, LEWIS T. KLINE, of Alpena, in the county of Alpena and State of Michigan, have invented new and useful Improvements in Log-Rollers; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The nature of this invention relates to certain new and useful improvements in the construction of devices for loading or rolling logs from skids in a saw-mill to the circular-saw carriage; and the invention consists in the peculiar construction of arms keyed upon a rock-shaft, and in the means employed for operating the same, all as more fully hereinafter set forth.

Figure 1 is a side elevation of my improved device as in the act of rolling a log from the skid to the carriage. Fig. 2 is a similar view with the parts in the reversed position. Fig. 3 is a plan view.

In the accompanying drawings, which form a part of this specification, A represents the skid-timbers, which are supported upon the timbers B upon the floor of the mill on which the saw-carriage is placed, such skids gradually inclining toward the carriage C.

D represents a shaft, which is journaled in proper bearings across the skids and near the front end thereof, and upon each or near each end of this shaft is rigidly secured the casting which carries the arms E, F, and G. These arms are preferably cast with and form an integral part of the hub G′.

H represents a steam-cylinder, which is rigidly bolted or otherwise secured to the side of the skid-timbers, the piston-rod H′ of such cylinders being properly secured to the arm G; or such connection may be made through the medium of the ordinary connecting-rod. This cylinder is provided with a proper valve, the stem of which is connected by a system of compound levers, I, which in turn are connected to the lever J, and by means of which such valve is actuated so as to admit steam from any proper source of supply to the cylinder, and to cause the piston to advance or retract, as may be desired.

K and L are rubber bumpers, against which the arms E G respectively come in contact in the operation of the device.

In practice, we will suppose the skids to be filled with logs and it is desired to roll the front one thereof onto the carriage C, the device then being in the position shown in Fig. 2, the arm E acting as a "chock" or stop, against which the front rod rests. The hand-lever J is now moved, so that steam is admitted into the cylinder upon the front face of the piston-head, which causes such piston to travel toward the rear end of its cylinder, and by the connections herein named necessarily draws the three levers into the position shown in Fig. 1, wherein the arm E has been lowered to or about the same level with the skids, while the lever F comes up in behind the log and starts it forward, rolling it upon the carriage down the incline of the skid, while at the same time this lever F acts as a block and prevents the other logs from moving forward. When it is desired to allow another log to advance the lever is then thrown in the opposite direction, which compels the three arms to assume the position shown in Fig. 2, and the operation above described is repeated as often as it is desired to supply the saw-carriage with a fresh log.

What I claim as my invention is—

1. In a device for rolling logs from a skid to a saw-carriage, a series of rocking arms mounted on a horizontal shaft suitably journaled in said skids, an engine-cylinder having its piston-rod suitably connected to the lower one of said rocking arms, and controlling mechanism, substantially as described.

2. In a device for rolling logs, one or more series of rocking arms, the rear one of which is raised by the depression of the remainder of the series and forms a stop against the stationary logs, and between which arms the moved log is carried, a horizontal shaft upon which all the rocking arms are mounted, a suitable frame or skid, and means for partially rotating and then reversing the shaft and arms, substantially as set forth.

3. In combination with the skids A, shaft D, and one or more series of rocking arms, E F G, suitable actuating-power cylinder, H, rod H′, connected to arm G, and suitable valve-levers, substantially as shown and described.

LEWIS T. KLINE

Witnesses:

JOHN C. COMFORT,

F. H. VROOMAN.