

(Model.)

C. E. LEWIS.

PRESSURE ROLLER FOR SAW MILLS.

No. 250,928.

Patented Dec. 13, 1881.

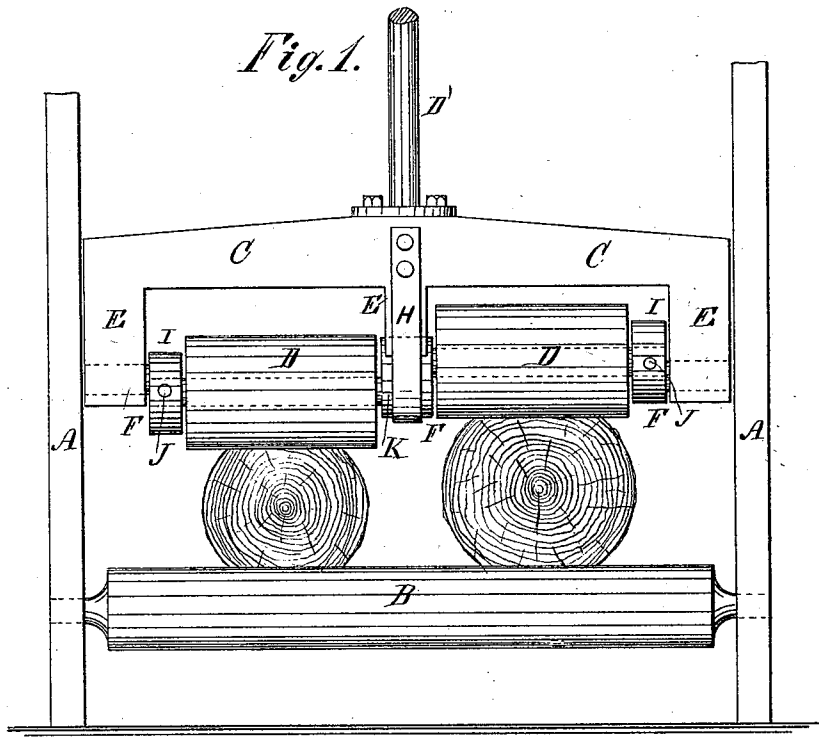


Fig. 2.

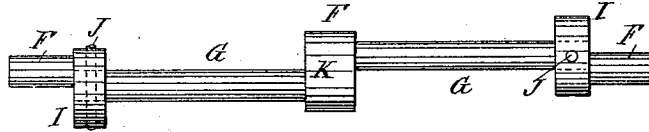


Fig. 3.

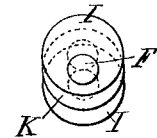
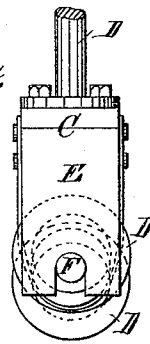


Fig. 4.



WITNESSES:

*Theo. G. Weston*  
*C. Spangwin*

INVENTOR:

*C. E. Lewis*

BY *Wm. H. G.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

CHARLES E. LEWIS, OF BAY CITY, MICHIGAN.

## PRESSURE-ROLLER FOR SAW-MILLS.

SPECIFICATION forming part of Letters Patent No. 250,928, dated December 13, 1881.

Application filed June 21, 1881. (Model.)

To all whom it may concern:

Be it known that I, CHARLES ENOS LEWIS, of Bay City, in the county of Bay and State of Michigan, have invented a new and useful Improvement in Pressure-Rollers for Gang-Saw Mills, of which the following is a specification.

Figure 1 is a front elevation of my improvement. Fig. 2 is a front elevation of the shaft. Fig. 3 is an end view of the shaft. Fig. 4 is an end elevation of the pressure-rollers and their supporting cross-head.

Similar letters of reference indicate corresponding parts.

The object of this invention is to secure equal pressure upon logs passing through gang-saw mills at the same time, whether the said logs be of equal or unequal thickness.

The invention consists in pressure-rollers for gang-saw mills constructed with a cross-head having downwardly projecting arms, a double-crank shaft pivoted to the arms of the cross-head, and the rollers placed upon the cranks, whereby the said rollers can adjust themselves to bear equally upon the logs, whether the said logs be equal or unequal in thickness; and also in the double-crank shaft that carries the rollers, constructed with a central journal, whereby the adjacent ends of the rollers can be brought close together, as will be hereinafter fully described.

A represents the bars to which the lower pressure-roller, B, is pivoted. C is the cross-head, that carries the upper pressure-rollers, D, and to which is attached the rod D', by which pressure is applied from a steam-cylinder or by other suitable means. Upon the lower side of the cross-head C are formed three arms, E, to the lower ends of which is pivoted the shaft F. Upon the shaft F are formed two cranks, G, to receive the rollers D. The cranks G project in opposite directions, as shown in Fig. 2. The ends or journals of the crank-shaft F work in slots in the ends of the end arms, E. The middle part or journal K of the crank-shaft F is made large, and works in a recess in the lower end of the center arm, E, where it is kept in place

by a strap, H, passing around the said center journal, and having its ends attached to the opposite sides of the middle part of the cross-head C. By this construction the adjacent ends of the cranks G, and consequently of the rollers D, are brought closer together than would be possible if the central journal was formed by bending the shaft F in the ordinary manner. The inner ends of the end journals of the crank-shaft F are attached to or formed upon disks or heads I, to which the outer ends of the cranks G are secured by pins J, or other suitable means, so that the said cranks can be detached to allow the rollers D to be placed upon and removed from the said cranks G. With this construction the rollers D will adjust themselves to press equally upon the logs passing through the mill, whether the said logs be equal or unequal in thickness.

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

1. Pressure-rollers for gang-saw mills, constructed substantially as herein shown and described, consisting of the cross-head C, the double-crank shaft F, and the rollers D mounted on said shaft, as set forth.

2. In pressure-rollers for gang-saw mills, the combination, with the cross-head C, having downwardly-projecting arms E, of the shaft F, having cranks G projecting in opposite directions, and the rollers D mounted on said shaft, substantially as herein shown and described, whereby the said rollers can adjust themselves to apply equal pressure to logs of the same or different thickness, as set forth.

3. In pressure-rollers for gang-saw mills, the double-crank shaft F, constructed with a central journal, K, substantially as herein shown and described, whereby the adjacent ends of the rollers can be brought close together, as set forth.

CHARLES ENOS LEWIS.

Witnesses:

JOHN DRAKE,  
F. L. WANDS.