

B. BERNDT.

Saw-Mills.

No. 141,028.

Patented July 22, 1873.

Fig 1

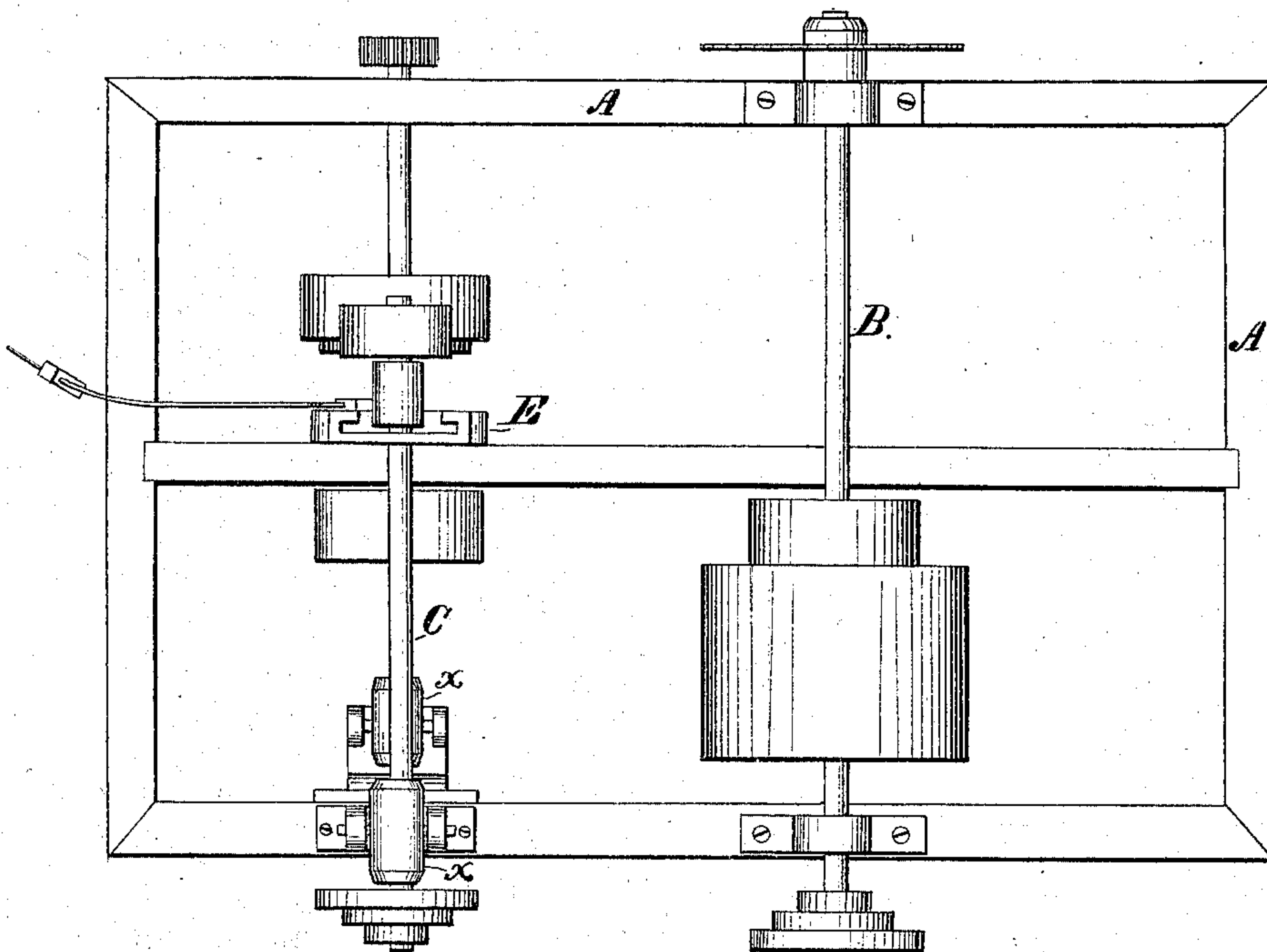


Fig 2.

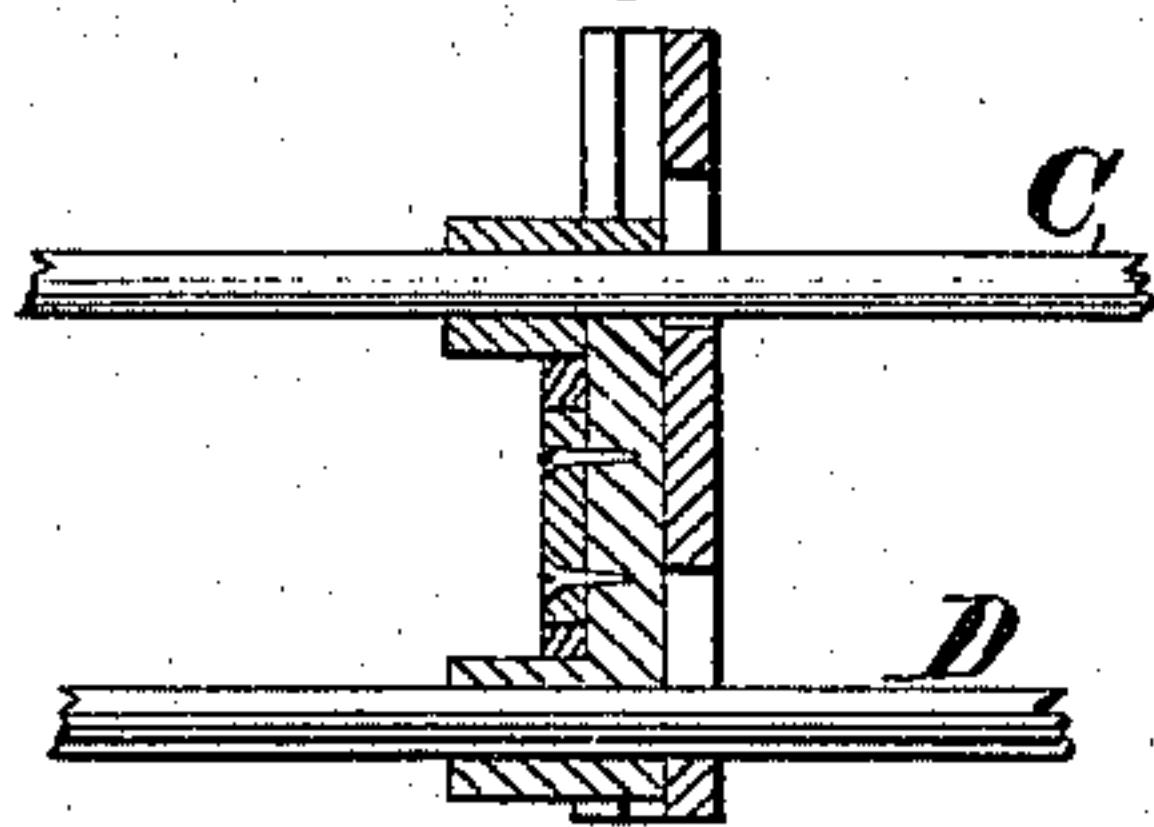


Fig 3.

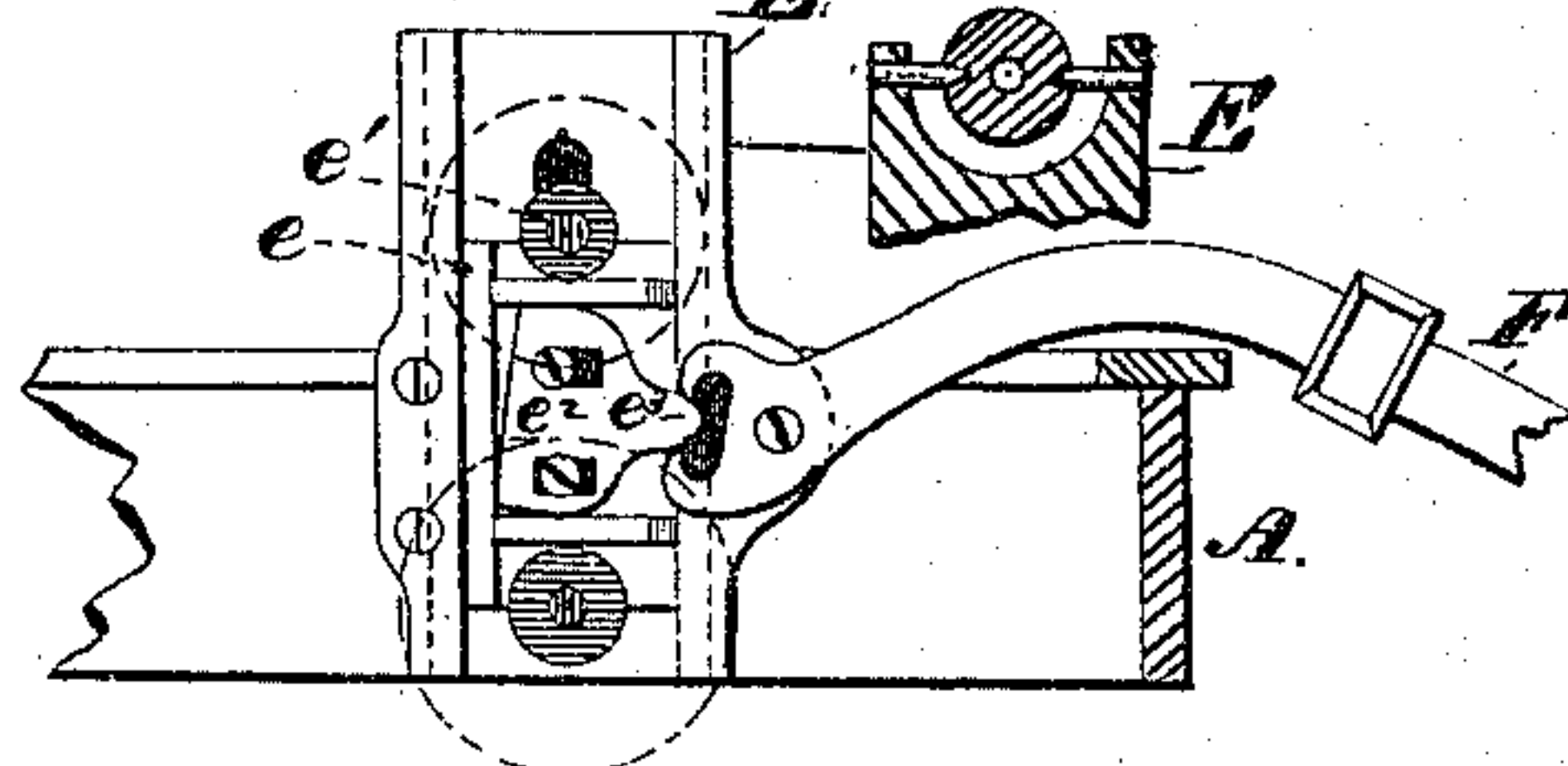
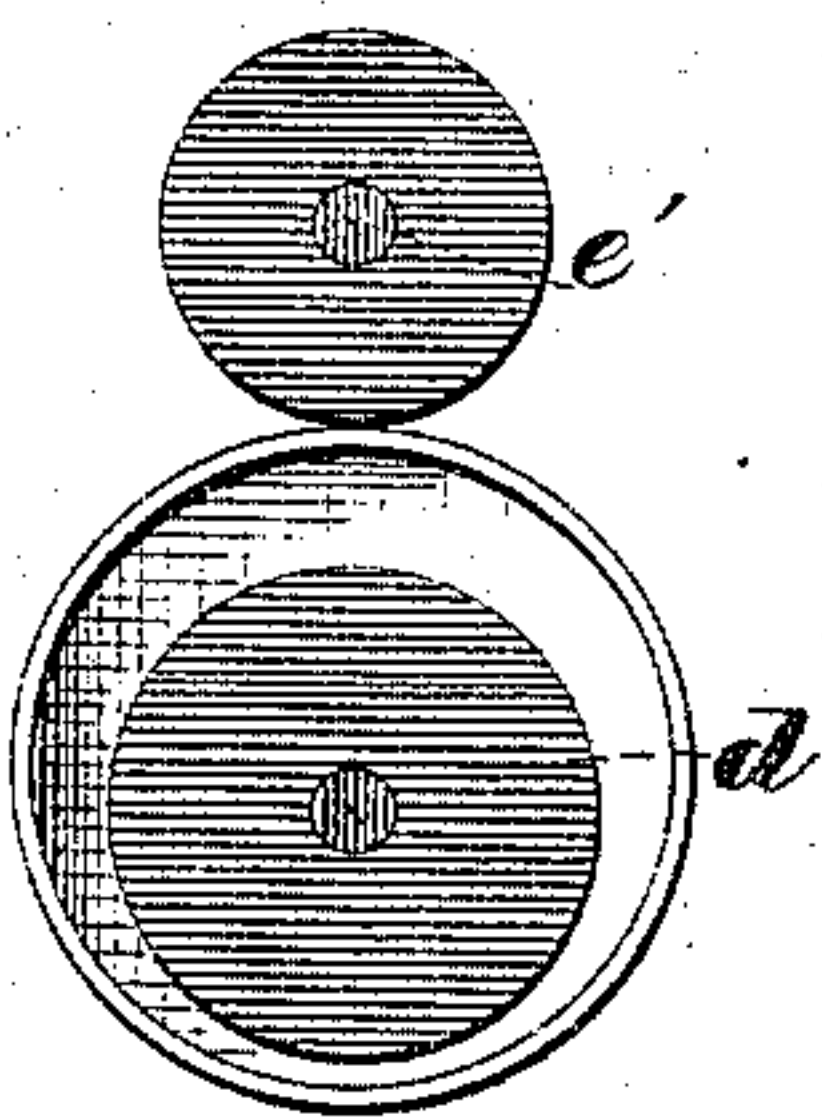


Fig 4



Witnesses;
Henry C. Clark
R. H. Dyer.

Fig 5

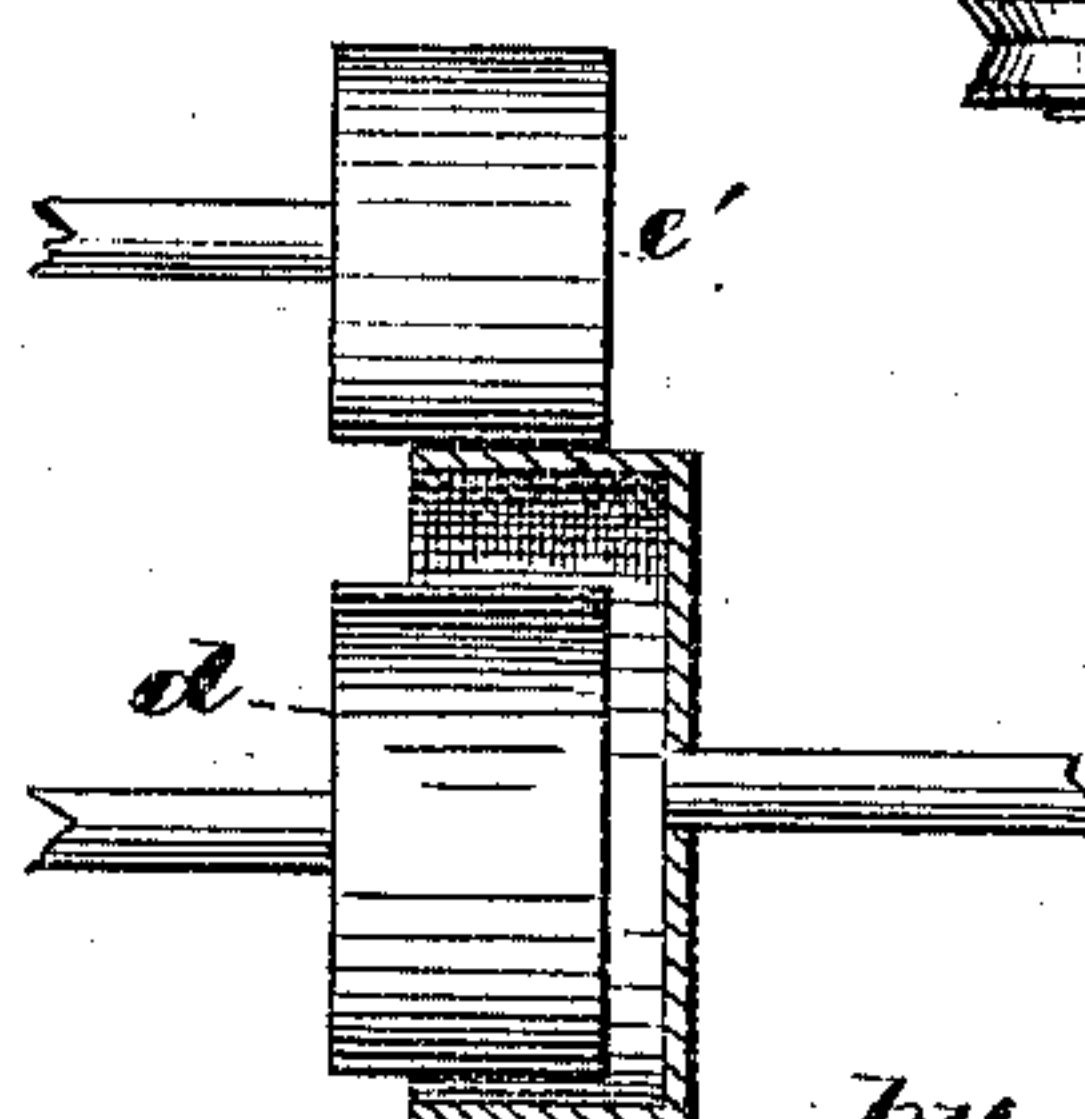
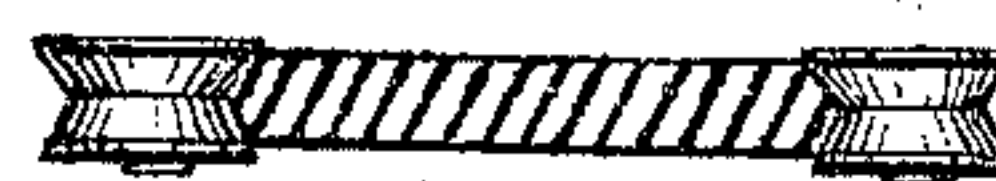


Fig 6



Inventor.

B. Berndt

by Dyer, Beadle & Co.
Atty's.

UNITED STATES PATENT OFFICE.

BERNHARD BERNDT, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO
RILEY & MAITLAND, OF SAME PLACE.

IMPROVEMENT IN SAW-MILLS.

Specification forming part of Letters Patent No. **141,028**, dated July 22, 1873; application filed
May 29, 1873.

To all whom it may concern:

Be it known that I, BERNHARD BERNDT, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Saw-Mills; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates to the means employed for communicating the proper reciprocating motion to the log-carriage from the main power; and consists mainly in the combination of an adjustable plate or block and lever of peculiar construction with sliding boxes, carrying the shafts of the friction-pulleys which communicate motion to the shaft which actuates, by means of its pinion, the log-carriage, as will be fully described hereinafter.

In the drawings, Figure 1 represents a plan view of my invention as applied to a saw-mill; Figs. 2, 3, and 6, views of various parts detached; and Figs. 4 and 5, views of the friction-drum and the vertically-moving pulleys.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A A represent frame-work of any proper construction; B, the saw-shaft, turning in suitable bearings, and provided with proper pulleys, in the usual well-known manner. C represents the shaft carrying the upper friction-pulley *c*, and D, Fig. 2, represents the lower shaft carrying the lower friction-pulley *d*, Figs. 4 and 5, as shown. These shafts are provided with proper pulleys for receiving power for the saw-shaft, as shown, and are supported at one end in bearings *x x*, Fig. 1, adapted to permit suitable vertical movement at the other end to cause either friction-pulley

to come in contact with the pulley upon the shaft which actuates the carriage.

The means employed for moving these shafts vertically constitutes my invention, which will now be described. E represents a guide-block, rigidly bolted to the frame-work, which is provided with suitable grooves or ways, in which move the sliding block *e*, having bearings *e*¹ for supporting the pulley-shafts, which latter pass through suitable slots in the guide-block, as shown. If desired, the sliding block may move between friction-pulleys, as shown in Fig. 6. *e*² represents a plate having a tongue-shaped lug, *e*³, as shown. It is bolted to the sliding block *e*, and by means of slots is made adjustable to compensate for wear. F represents a lever having its short arms provided with curved fingers upon each side, which are adapted to inclose the tongue-shaped lug, as shown. The friction-pulleys are employed in connection with a friction-pulley attached to the shaft, which actuates the carriages in the usual well-known manner.

The operation will be readily understood. By means of the lever, the sliding block is caused to move vertically, as described, and bring one or the other of the friction-pulleys in contact with the intermediate pulley which operates the carriage. The tongue-shaped lug, by means of its double curve, is enabled to adapt itself to every movement of the lever.

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

The combination of the finger-headed lever F, the adjustable plate *e*², the sliding block *e*, and guide-block E, substantially as described.

This specification signed and witnessed this 19th day of May, 1873.

Witnesses: BERNHARD BERNDT.
M. L. LIGGETT,
D. N. ROOK.