(No Model.)

H. R. BARNHURST.

BAND SAW MILL.

No. 384,112. Patented June 5, 1888.

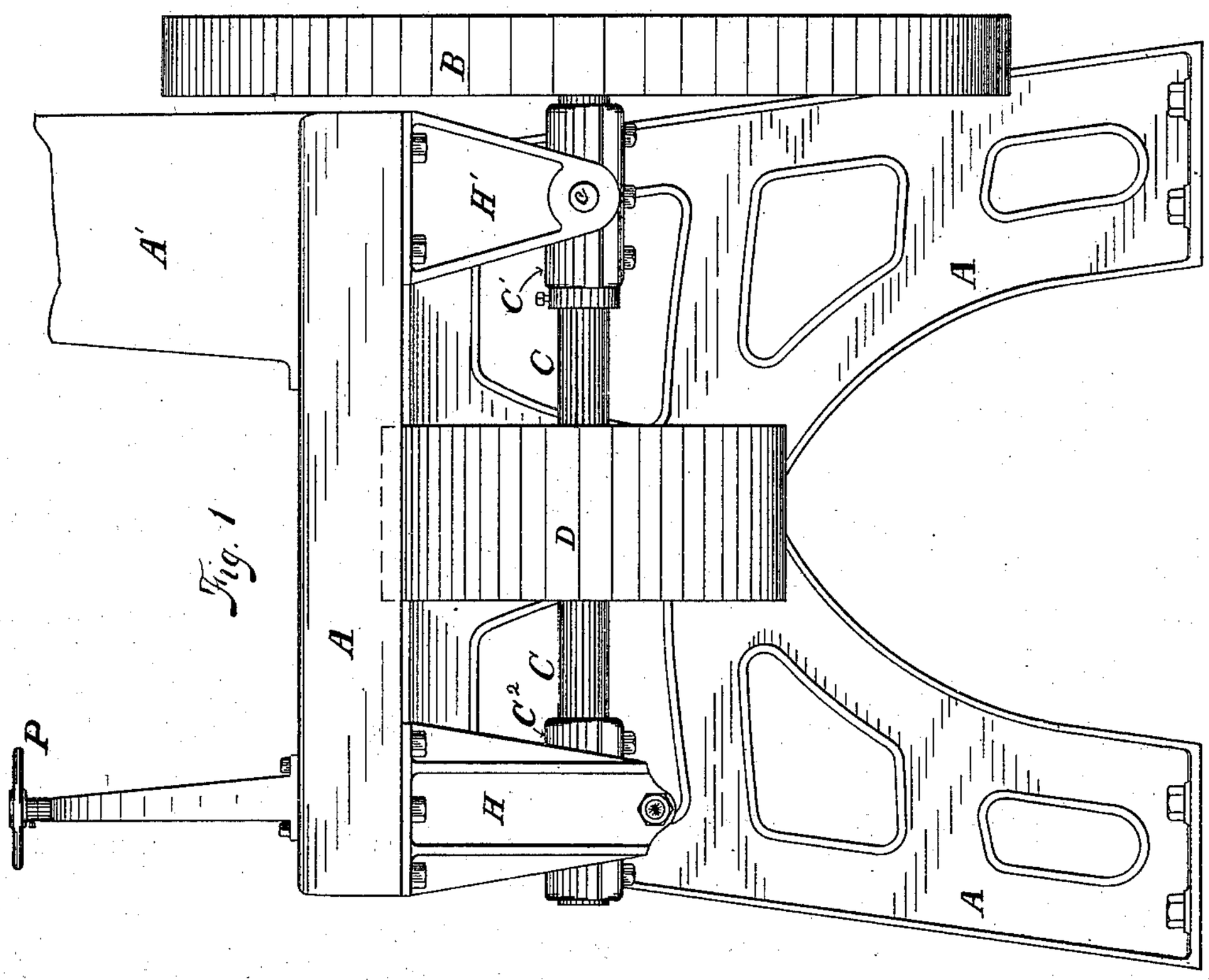

Fig. 1

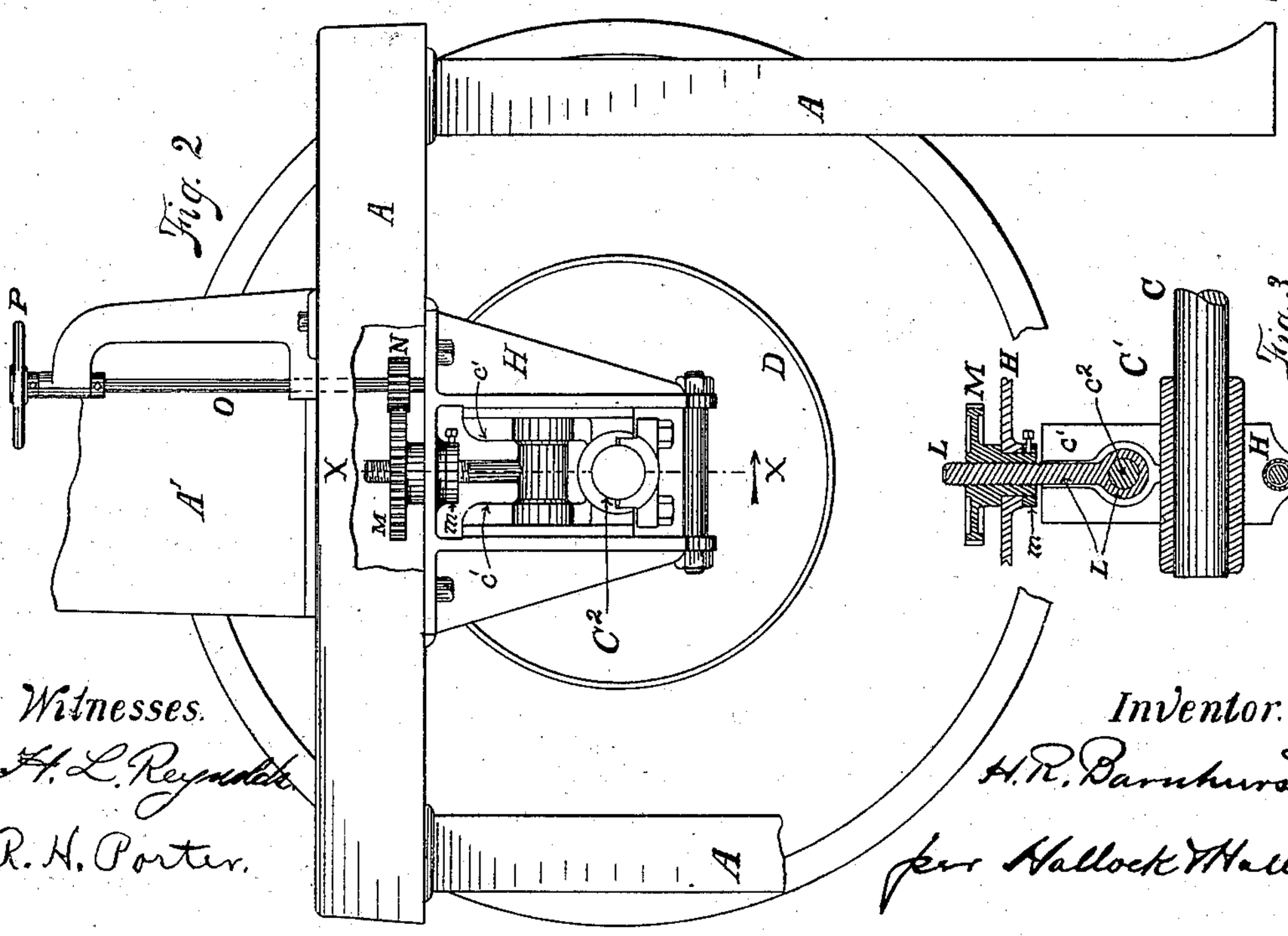

Fig. 2

Fig. 3

Witnesses.
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R. H. Porter.

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UNITED STATES PATENT OFFICE.

HENRY R. BARNHURST, OF ERIE, PENNSYLVANIA.

BAND-SAW MILL.

SPECIFICATION forming part of Letters Patent No. 384,112, dated June 5, 1888.

Application filed May 8, 1886. Serial No. 201,546. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. BARNHURST, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Band-Saw Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to band-saw mills; and it consists in certain improvements in the construction thereof, as will be hereinafter fully set forth, and pointed out in the claim.

In band-saw mills it is desirable that one of the band-wheels on which the saw is mounted shall be so hung that it can be tilted slightly, so as to train the saw properly. Many devices have heretofore been made for this purpose—such, for example, as are shown in Letters Patent to Doane and McKee, No. 120,949, dated November 14, 1871; to A. Friedi, No. 286,919, dated October 16, 1883; to D. K. Allington, No. 327,428, dated September 29, 1885; to S. Stephens, No. 332,365, dated December 15, 1885, and to C. Esplin, No. 340,943, dated April 27, 1886.

It is essential to a successful construction for the purposes named that it be so devised that the adjustment may be made by the sawyer while at his post with his eye on the saw while it is operating in the cut, and done instantly, or as nearly so as is mechanically practicable.

Either of the band-wheels may be made thus adjustable, but there is no necessity of but one of them being adjustable, and there is no necessity for both a horizontal and vertical adjustment of the band-wheel shaft, as is provided for by Stephens and by Esplin, a vertical adjustment being all that is required.

While, as above stated, either of the band-wheels may be made thus adjustable, it is preferable to make the lower one adjustable and hang it under the husk or base of the column as I show it, as it leaves the top of the husk unobstructed and brings the adjusting mechanism contiguous to the sawyer while at his post, and it also avoids having overhanging mechanism, which is objectionable.

My invention consists in providing means for making this adjustment of the band-wheel shaft by the sawyer while at his post and while the saw is in full operation.

My invention is illustrated in the accompanying drawings as follows:

Figure 1 is a side elevation of the base-frame of a band-saw mill, showing only the lower band-wheel and its shaft and the driving-pulley. Fig. 2 is an end view of the same parts from the left of Fig. 1. Fig. 3 is a vertical section on the line *x x* in Fig. 2, showing detail of construction.

A A is the frame-work, and A′ the column of the frame-work, which supports the upper band-wheel.

B is the lower band-wheel; C, the shaft of the lower band-wheel; D, the driving-pulley; C′ C², the journal-boxes of the shaft C, and H H′ the hangers which support the journal-boxes.

The journal-box C′ is pivoted on a trunnion, *c*, in the hanger H′. The journal-box C² is fitted with slides *c′ c′*, which slide upon the hanger-frame H and are joined by a wrist-pin, *c²*, (see Fig. 3,) and a link, L, yokes upon said pin and passes up through the top plate of the hanger H, and is then provided with a screw-thread and a geared nut, M. The nut M is journaled in the top plate of the hanger H, and retained against vertical movement by a collar, *m*. The nut M is operated by a hand-wheel, P, on a shaft, O, and a gear, N, which meshes with the cogs on the nut. The hand-wheel P is within convenient reach of the sawyer while at his post, and he can manipulate it while observing the saw as it is operating, and by turning it one way or the other he will instantly tip the band-wheel B one way or the other, as he desires.

What I claim as new is—

In a band-saw mill, the combination, with one of the band-wheels and the shaft supporting the same, of a pivoted journal-box, C′, for said shaft near the said band-wheel, a vertically-sliding journal-box, C², for said shaft at its end opposite the band-wheel, a link, L, pivoted on said sliding journal-box, a geared nut, M, on said link, and a shaft gearing with said nut, which extends to and may be operated by the sawyer while at his post observing the saw in operation.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY R. BARNHURST.

Witnesses:

ROBT. H. PORTER,

J. K. HALLOCK.