

J. T. BECKWITH.

LEVELING AND TRAMMING APPARATUS FOR MILLSTONES.

No. 171,974.

Patented Jan. 11, 1876.

Fig. 1

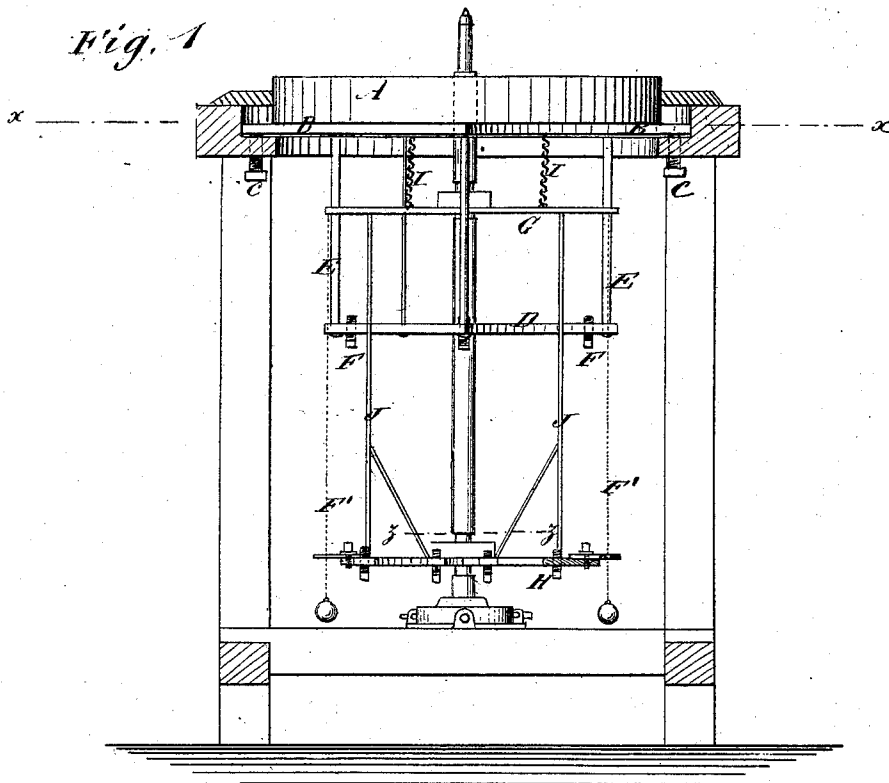


Fig. 3

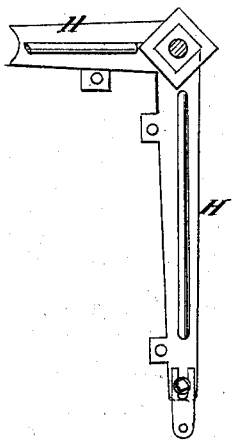
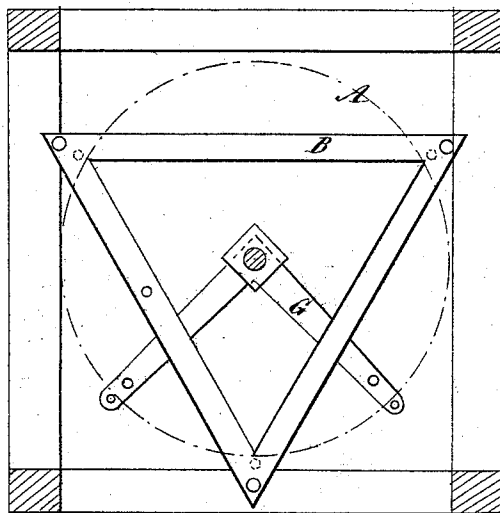


Fig. 2



WITNESSES:

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JAMES T. BECKWITH, OF CAMERON MILLS, NEW YORK.

IMPROVEMENT IN LEVELING AND TRAMMING APPARATUS FOR MILLSTONES.

Specification forming part of Letters Patent No. **171,974**, dated January 11, 1876; application filed October 29, 1875.

To all whom it may concern:

Be it known that I, JAMES T. BECKWITH, of Cameron Mills, Steuben county, New York, have invented a new and Improved Leveling and Tramming Apparatus for Millstones, of which the following is a specification:

My invention consists of a frame suspended from another frame, on which the stone rests, and is leveled by screws from below, on which suspended frame are screws, which, being adjusted in the frame when the stone is first leveled by its face, serve afterward to level the stone at any time without removing the runner, and this lower frame serves for tramming the spindle; but, in addition thereto, a couple of plumb-lines are suspended from an upper frame on the spindle through a lower one, by which the spindle may be trammed.

Figure 1 is a side elevation of my improved leveling and tramming apparatus, and also a section of the supporting-frame. Fig. 2 is a horizontal section taken on line *x x*, Fig. 1; and Fig. 3 is a section through the spindle on line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the bed-stone, which rests on the triangular leveling-frame B, under which are adjusting-screws C for leveling the stone. D is another triangular frame, suspended from frame B by rods E, and having set-screws F, to be leveled when the stone has been leveled, and thereby serve as a gage by which to level the stone without removing the runner, or when the mill is running, if necessary. As

these screws will always be at the same distance from the spindle when it is plumb and the stone is level they may also be used as gages to tram the spindle; but as a special contrivance for tramming it without taking up the runner, or when the mill is running, I have provided the plumb-lines F', together with the suspending-frame G and the gage-frame H, by which the spindle may be at any time accurately and readily trammed. These two frames are centered on the spindle, but not supported on it, and they do not revolve with it. The upper one is suspended from frame B by chains I, so that it is leveled when the stone is leveled, and the lower frame is suspended from the upper one by rods J.

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

1. The combination of the frame D and adjusting-screws F with the leveling-frame B and adjusting-screws C, substantially as specified.

2. The combination of the suspending-frame G, gage-frame H, and the plumb-lines F' with the leveling-frame B and the spindle, substantially as specified.

3. The combination of suspending-frame G, gage-frame H, and the plumb-lines F' with the spindle, substantially as specified.

JAMES T. BECKWITH.

Witnesses:

S. A. BAILEY,
S. V. LALLENEN.