F. G. WALLACE.

Bedstone-Support for Grinding-Mills.

No. 201,071. Patented March 5, 1878.

Fig. 1.

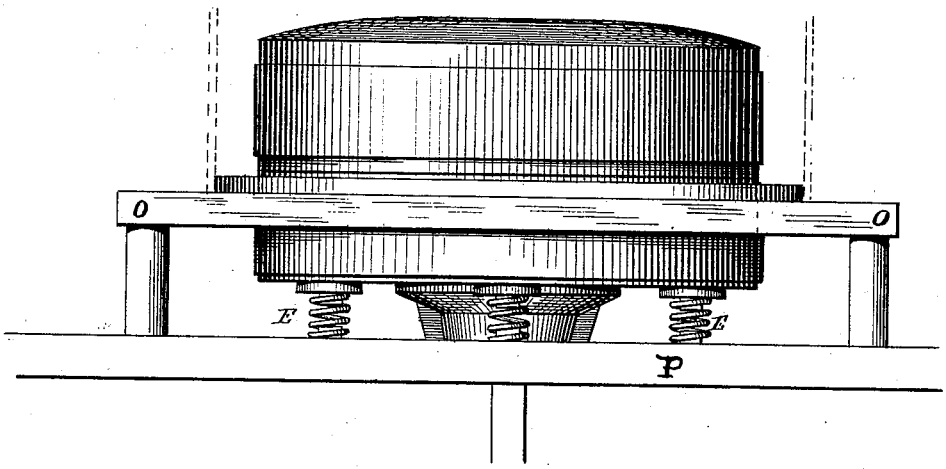


Fig. 2.

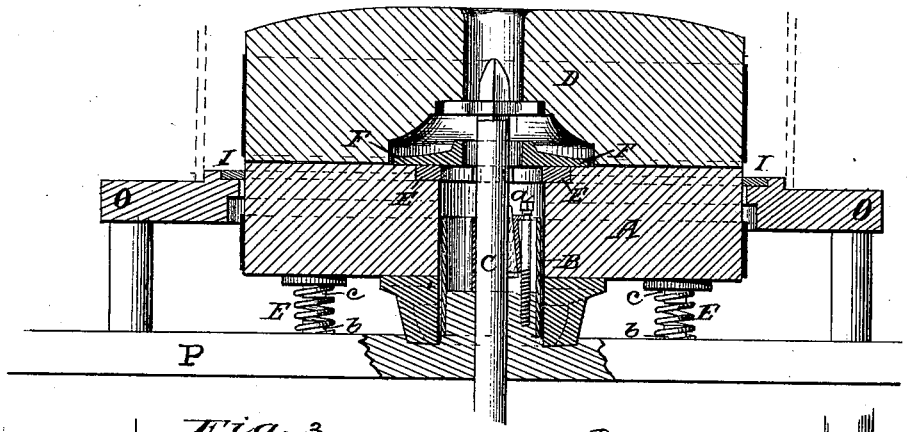


Fig. 3.

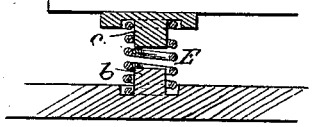
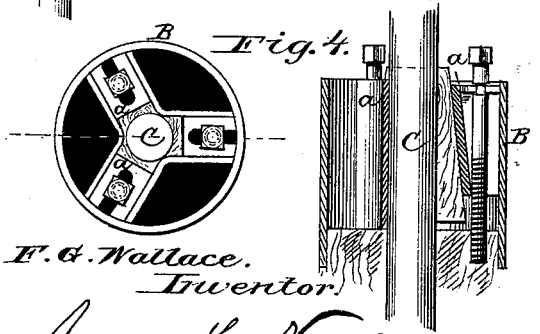


Fig. 4.



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UNITED STATES PATENT OFFICE.

FERRAND G. WALLACE, OF JACKSON, ASSIGNOR TO ALFRED E. HAWES AND JOHN WEBSTER, OF DETROIT, MICHIGAN.

IMPROVEMENT IN BED-STONE SUPPORTS FOR GRINDING-MILLS.

Specification forming part of Letters Patent No. **201,071**, dated March 5, 1878; application filed November 22, 1877.

To all whom it may concern:

Be it known that I, FERRAND G. WALLACE, of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Mill-Trams, of which the following is a specification:

This invention relates to certain new and useful improvements in mill-trams, having for its object to improve the construction of the same, rendering the same efficient in use and not liable to get out of repair; and it consists in the construction and combination of parts, as will be hereinafter more fully described, and pointed out by the claim.

In the drawings, Figure 1 represents a side elevation of my invention, and Fig. 2 a vertical central section of the same, and Figs. 3 and 4 detached views.

Referring to the drawings, A represents the bed-stone, having an enlarged central eye or opening for the reception of the stationary cylindrical bushing B, which is provided with bearing-blocks *a* passing up through said bushing and encircling the spindle C, upon the upper conical end of which is supported the runner D.

The bed-stone A is arranged upon and supported by a series of coiled metallic springs, E, there being in the present example three of these springs employed. The lower ends of these springs rest upon cylindrical studs or projections *b b* of the supporting-frame, and their upper ends rest upon similar cylindrical studs or projections *c* attached to or formed on the under surface of the bed-stone, thereby permitting the latter to oscillate or rock without affecting the movement of the runner-stone, while at the same time the bed-stone can yield in a downward direction, and any liability of the same jarring is avoided, the entire device operating in a smooth and effectual manner, the bed-stone always maintaining a perfectly true position with respect to the grinding-surface of the runner-stone.

The coiled springs are supported by the cylindrical studs or projections *b* and *c*, and any tendency of the springs to tilt sidewise or bend laterally is entirely prevented.

F represents an annular plate secured in a recess around the upper edge of the eye of the stone A, flush with its upper surface, and said plate is provided with apertures, through which screws may be passed for adjusting the bearing-blocks.

The letter F represents an annular plate secured to the plate E, or to the top of the bed-stone, and provided with an annular shoulder around the central openings on its upper face, and the openings through both plates are sufficient to set loosely around the spindle C.

I represents a rubber or other elastic ring secured around the bed-stone, at or near the upper edge or surface of the same, which serves to steady the bed-stone, but at the same time permits it to yield slightly laterally.

O represents the husk or supporting frame, which is constructed as represented in the drawing, which, when used with this arrangement of springs and projections above described, need be of only sufficient strength to support the stones, without extending the same down to entirely inclose the periphery of the lower stone to keep the same in place, as in similar devices heretofore used, wherein the lower stone rests upon an elastic surface, and provided with an elastic packing at or near the top of its periphery, for the reason that by the construction of the springs, and their use in connection with the studs, the stone is by this means held against any lateral movement.

P represents the stone plank or support, upon which the springs E rest or are supported, so that the springs are attached, respectively, to the bed-stone and the stone plank or support.

What I claim, and desire to secure by Letters Patent, is—

In combination with the stones A D, elastic packing, and the husk O, the coiled springs E, cylindrical studs or projections *b* and *c*, attached respectively to the bed-stone and stone plank, and extending toward the center of the spring from the top and bottom, whereby the stone A is held from lateral movement by the springs and studs without the aid of the husk or supporting frame, constructed and arranged substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

FERRAND G. WALLACE.

Witnesses:

WM. K. GIBSON,

E. DANIEL.