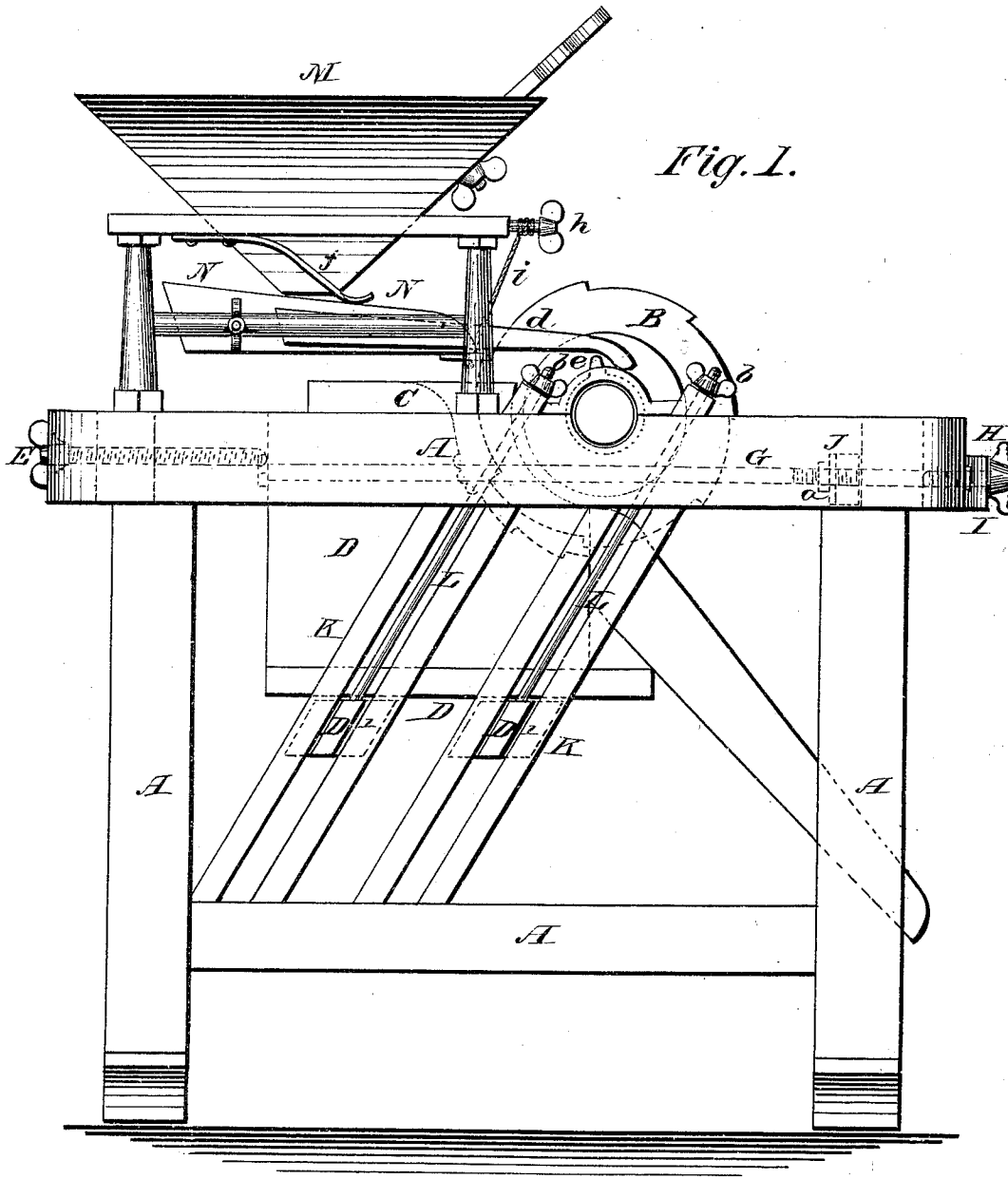


H. H. WITT & B. L. SMITH.
GRINDING MILL.

No. 176,157.

Patented April 18, 1876.



Witnesses:
P. C. Dieterich
F. H. Duffey

Inventors:
Horace H. Witt
Benjamin L. Smith

Per: C. H. Watson & Co. Attorneys.

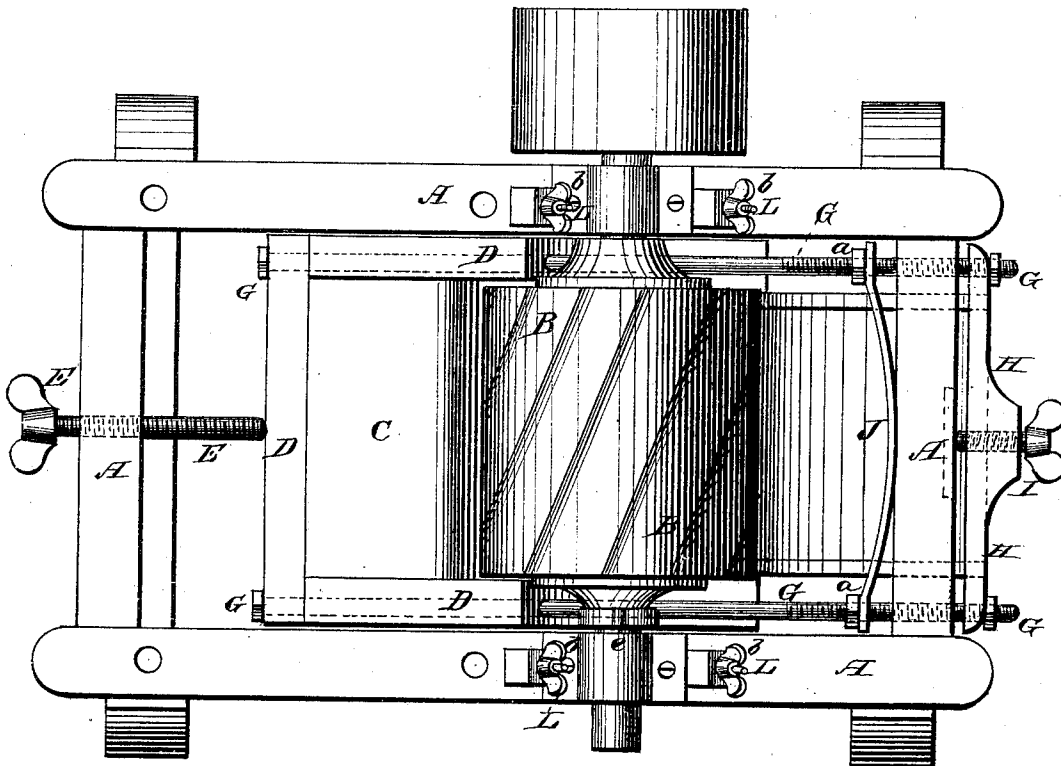
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Fig. 2.



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UNITED STATES PATENT OFFICE.

HORACE H. WITT AND BENJAMIN L. SMITH, OF GADSDEN, ALABAMA.

IMPROVEMENT IN GRINDING-MILLS.

Specification forming part of Letters Patent No. **176,157**, dated April 18, 1876; application filed March 30, 1876.

To all whom it may concern:

Be it known that we, HORACE H. WITT and BENJAMIN L. SMITH, of Gadsden, in the county of Etowah and State of Alabama, have invented certain new and useful Improvements in Grinding-Mills; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to that class of grinding-mills having a cylindrical burr or runner, and a segmental adjustable bed-stone; and the nature of our invention consists principally in the devices for adjusting the bed-stone to the runner; and also in the combination of parts, as will be hereinafter more fully set forth.

In the annexed drawing Figure 1 is a side elevation, and Fig. 2 is a plan view with the hopper removed.

A represents the frame of the grinding-mill. B is the cylindrical runner, and C is the bed-stone held in the casing D.

Through the rear end of the frame is passed a set screw, E, which bears against the back of the bed-stone casing D near the top, for adjusting the stone C to the runner.

From the front of the casing D, on each side near the top, projects a rod, G, which passes through the top cross-bar at the front of the frame, and both rods are connected by a bar, H, through the center of which is passed a set-screw, I, to bear against said top cross-bar of the frame, by which means the bed-stone is further adjusted as required.

On the rods G G is placed a spring, J, adjusted by means of nuts *a a*, which renders the bed-stone sufficiently yielding to allow any foreign hard substances that might be in the grain to pass down between the stones

without injury to the same. The tension or elasticity of the spring J is regulated by the nuts *a*.

The bed-stone casing D has cross-bars D' D' secured on its under side, which bars project beyond the sides thereof into inclined guides K K, formed in the sides of the frame. These cross-bars are adjusted and supported by means of screw-rods L L, and thumb-nuts, *b b*, for holding the bed-stone to the runner.

M represents the hopper elevated above the machine. Under this hopper is a hinged shoe, N, provided on one side by a projecting arm, *d*, which is held by means of a spring, *f*, onto a knocker or eccentric, *e*, on the runner-shaft for shaking the shoe. The amount of such shaking or agitation is regulated by means of a cord, *i*, attached to the front edge of the shoe, and connecting with a set-screw, *h*, in the hopper-supporting frame, so that by turning said set-screw the shoe can be raised or lowered to bring the arm *d* closer on or farther from the knocker *e*.

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

1. The combination, with the bed-stone casing D, of the rods G G, cross-bar H, and set-screw I, for the purposes set forth.

2. The adjustable spring J and nuts *a*, in combination with the rods G, and bed-stone casing D, for the purposes herein set forth.

3. The set-screw E in combination with the casing D, rods G, cross-bar H, and set screw I, as and for the purposes set forth.

In testimony that we claim the foregoing as our own, we affix our signatures in the presence of two witnesses.

HORACE H. WITT,
BENJAMIN L. SMITH.

Witnesses:

C. H. WATSON,
WILLIAM L. BRAMHALL,
THOMAS B. SMITH,
JOHN C. LATHAM.