J. M. COLLIER.

GRINDING MILL.

No. 183,139. Patented Oct. 10, 1876.

Fig. 1

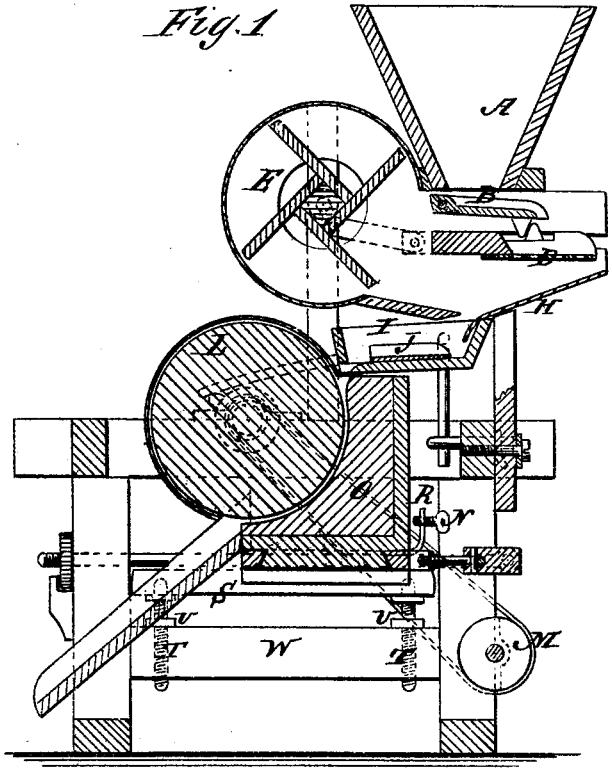
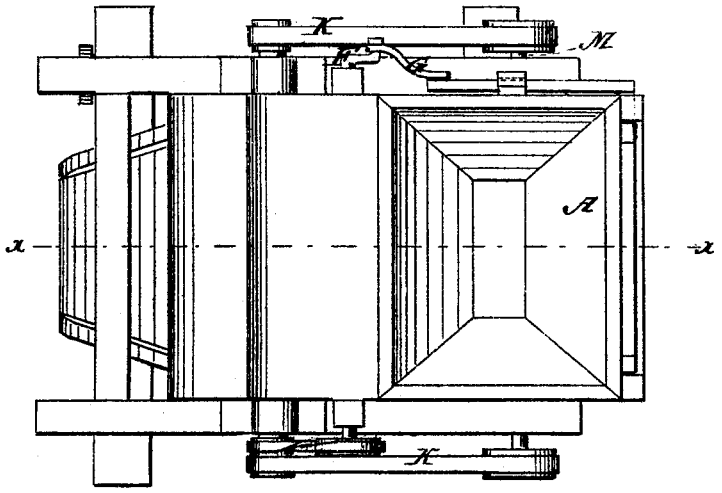


Fig. 2



WITNESSES:

E. Wolff

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UNITED STATES PATENT OFFICE.

JAMES MADISON COLLIER, OF GADSDEN, ALABAMA.

IMPROVEMENT IN GRINDING-MILLS.

Specification forming part of Letters Patent No. **183,139**, dated October 10, 1876; application filed June 20, 1876.

To all whom it may concern:

Be it known that I, JAMES M. COLLIER, of Gadsden, in the county of Etowah and State of Alabama, have invented new and useful Improvements in Grinding-Mills, of which the following is a specification:

My invention relates to mills for grinding grain in which a horizontal cylindrical runner and a stationary concave bed-stone are used.

The invention will first be fully described in connection with the drawing, and then pointed out in the claim.

Figure 1 is a sectional elevation of the mill, taken on the line *x x*, Fig. 2. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A is the grain-hopper; B, a shoe, by which the grain is fed onto a sieve, D, where it is subjected to a blast from the fan E, to separate the light foul matters. The sieve and the feed-shoe B are shaken by the crank F on the fan-shaft and connecting-rod G. From the sieve the grain falls down the chute H into the feed-hopper I, which is as wide as the length of the stones, and has corrugations J in the bottom to effect equal distribution of the grain along the stone from end to end. K represents driving-belts to each end of the running-stone L, both being from the counter-shaft M, which is so located that the pull of the belts is directly against the crowding of the journals of the runner against the boxes by the grain. N represents the adjusting-screws to the bed-stone O, which I mount in the spring-supports R, so as to allow the stone to yield or spring back a little when necessary.

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

The combination, with the driver of a grinding-mill composed of a cylindrical runner and a concave, of driving-belts K, one at each end of the driver, said belts being led in a direction opposite to the push of concave to a counter-shaft, M, as and for the purpose set forth.

JAMES MADISON COLLIER.

Witnesses:

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