

W. B. ALLEN.

Flour Mills.

No. 133,819.

Patented Dec. 10, 1872.

Fig. 1.

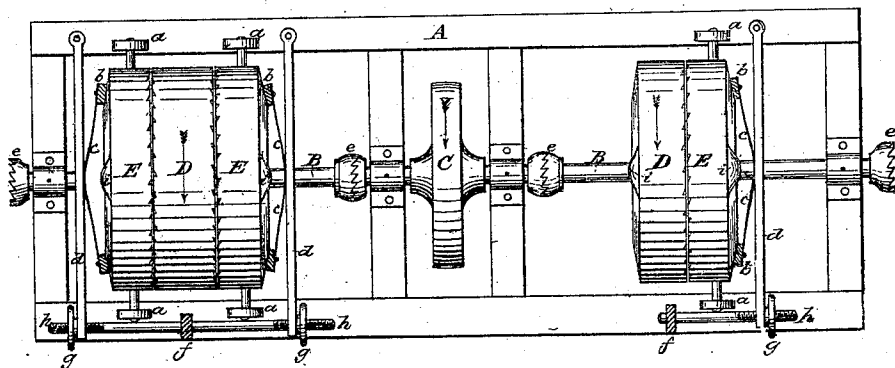
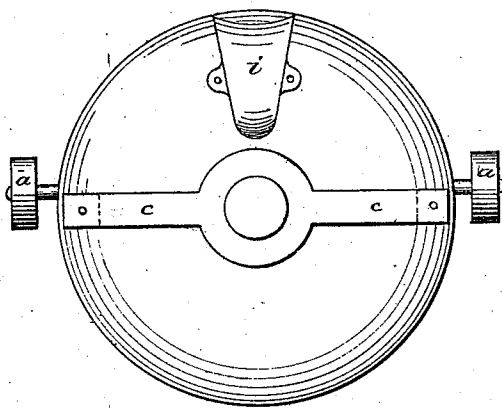


Fig. 2.



Witnesses:

A. H. Norris.

W. J. Peyton.

Inventor:

W. B. Allen.

By James L. Norris
his attorney.

UNITED STATES PATENT OFFICE.

WILLIAM B. ALLEN, OF WINONA, MINNESOTA, ASSIGNOR OF ONE-HALF HIS
RIGHT TO ERASTUS N. WEST, OF SAME PLACE.

IMPROVEMENT IN FLOUR-MILLS.

Specification forming part of Letters Patent No. **133,819**, dated December 10, 1872.

To all whom it may concern:

Be it known that I, WILLIAM B. ALLEN, of Winona, in the county of Winona and State of Minnesota, have invented a new and useful Improvement in Grinding-Mills, of which the following is a specification:

My invention relates to certain improvements in grinding-mills; and consists in arranging one or more tram-wheels upon one or more non-revolving millstones in such a manner that the said stones are prevented from revolving and rendered capable of adjustment toward and from the revolving millstones with much more ease and facility than if said stones were provided with rigid lugs projecting from their periphery. My invention further relates to a mode of rendering the non-revolving millstones adjustable; and consists of a spring-bar pressing at each end upon the millstone and acted upon by a bar or lever adjusted by means of a screw and nut; the object being to grind finer and coarser, as the case may be.

In the drawing, Figure 1 represents a top view of my improved grinding-mill; and Fig. 2 is a side view of one of the non-revolving stones, showing the spring-bar and tram-wheels.

A represents a rectangular or other frame supporting the shaft, which may consist of sections B B joined together at their ends by couplings *ee*. C represents the driving-pulley, firmly secured to the shaft B, which gives motion to the shaft and millstones. D D are millstones firmly secured to the shaft B to revolve with the same. Upon one or both sides of the stones D is arranged loosely one or more non-revolving stones, E E, having upon their opposite peripheries tram-wheels *a a*, which rest upon the upper surface of the frame A, thus enabling the said stones to be run back from contact with the stone D, when it is so desired for any purpose. Arranged upon the shaft B, and each end bearing on an elastic block, *b*, on the non-revolving stones E, is a spring-bar, C, which exerts a pressure on the said stones and presses them at all times toward the revolving stone D; and acting upon

this bar C at its center is a lever, *d*, which is pivoted to one side of the frame A and extends to the opposite side, where it is rendered adjustable by means of the bolt *h* passing through an opening in its end, and provided with a nut, *g*, the other end of this bolt *h* being held in a small standard or block, *f*, attached to the frame A.

By this arrangement the non-revolving stones E have a tendency at all times to press toward the revolving stone D; but, at the same time, should any hard substance get between the grinding-surfaces the said matter will overcome the resistance of the spring-bar *c*, pressing the same outward and permitting the hard substance to pass through without injuring the grinding surface of the stones, which will afterward assume their original position, thus rendering the said stones self-adjusting.

By means of the sections of shafting and their couplings any number of millstones may be used, saving great expense and labor, inasmuch as only three stones are necessary to do the work of six in the ordinary manner.

I do not claim stops upon the periphery of millstones to support and prevent the same from revolving, for such are old and well known.

Having thus described my invention, I claim—

1. The tram-wheels *a*, in combination with one or more adjustable non-revolving millstones, substantially as and for the purpose described.

2. The spring-bar *c*, elastic blocks *b*, lever *d*, screw and nut *g h*, and one or more non-revolving millstones, in combination with one or more revolving millstones, the driving-shaft, and its gear mechanism, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of September, 1872.

WILLIAM B. ALLEN.

Witnesses:

NORMAN BUCK,
W. S. M. ABBOTT.