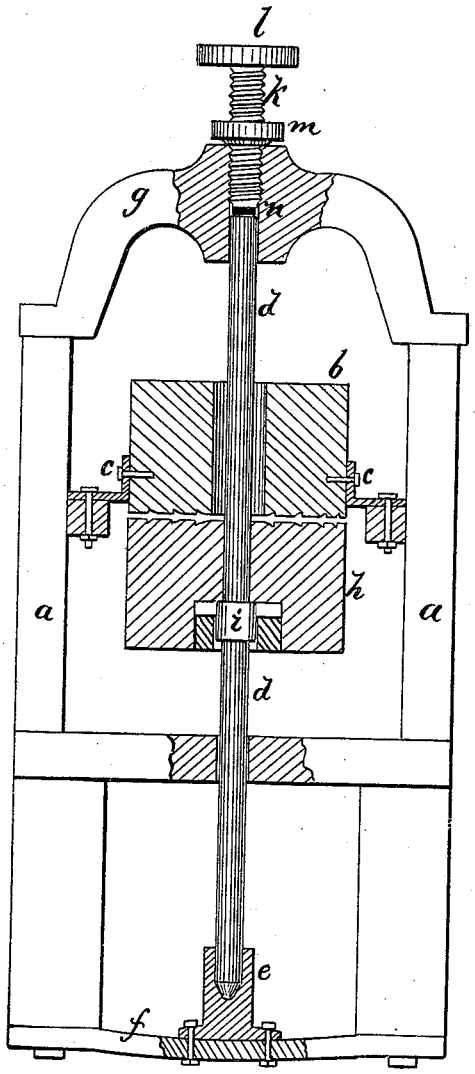
S. P. WALLING.

Millstone Adjustment.

No. 212,525. Patented Feb. 18, 1879.



WITNESSES:

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STEPHEN P. WALLING, OF SOUTH EDMESTON, NEW YORK.

IMPROVEMENT IN MILLSTONE-ADJUSTMENTS.

Specification forming part of Letters Patent No. **212,525**, dated February 18, 1879; application filed July 27, 1878.

To all whom it may concern:

Be it known that I, STEPHEN P. WALLING, of South Edmeston, in the county of Otsego and State of New York, have invented a new and Improved Millstone-Adjustment, of which the following is a specification:

The object of my invention is to provide a means for adjusting the running stone of a pair of millstones to and from the stationary stone, whereby the space between the two stones can be regulated as desired, and the stones cannot touch when the feed runs out or is accidentally stopped.

The said invention is especially adapted to portable mills, with either vertical or horizontal stones, and may also be applied to stationary mills.

It has been heretofore usual to adjust millstones by a screw, which is turned to limit the distance the stones may be held apart by the grain, and the running stone is held to its work by a spring; but as soon as there is no grain between the stones the running stone closes against the stationary stone, and they are both dulled and injured by the contact.

My invention consists in a screw applied against the end of a mill-spindle, on which the stone is rigidly held, so that the running stone can be forced by the screw away from the stationary stone and held against the action of a spring at the opposite end of a spindle. The running stone is thereby held from the stationary stone by the screw, and may yield in the direction to separate them in case any hard substance gets between the stones; but they cannot close farther than is permitted by the screw.

In the accompanying drawing I have represented a portable mill in vertical section, with the stones in horizontal position and my invention applied thereto.

The supporting frame-work *a* of the mill is of the usual character for horizontal or vertical mills, and may be constructed of iron or wood.

b is the upper and stationary stone, bolted to the frame *a* by the flanges of the ring *c*, which is secured around *b*. *d* is the spindle, that is supported by a step, *e*, bolted to the spring bridge-tree *f* and the arch *g* at the top of the frame *a*, in which the upper end of *d* has a bearing, as shown. The spindle *d* passes through the eye in stone *b*. *h* is the running stone, that is secured rigidly to spindle *d* by the arms of the sleeve *i*, which sleeve is keyed to *d*, and its arms pass into mortises in the stone *h*.

Lead or zinc is to be cast around the spindle and sleeve *i*; or the stone may be held fast in any desired manner.

k is a screw, which is in a threaded hole in arch *g* above the upper end of spindle *d*. *l* is a hand-wheel for operating the screw *k*, and *m* is a set-nut, bearing upon the arch *g*, to retain the screw *k* when adjusted. *n* is a metal washer, that intervenes between *d* and *k* to take the wear caused by revolution of spindle *d*.

By turning the screw *k* the spindle *d* is forced downward, the bridge-tree *f* springing sufficiently to allow of that movement, and the stone *h* is thereby moved away from the stone *b* more or less, as desired. The stone cannot rise after being adjusted until the screw *k* is reversed, when it returns by the spring of the bridge-tree *f*.

It is desirable that a spring be placed at the end of spindle *d*, opposite screw *k*, to allow the stone *h* to give downward, and permit the passage of a nail or other hard substance between the stones without injuring them. The spring bridge-tree *f* answers this purpose; but it is evident that a spring of another form might be substituted.

The spindle and stone *h* will be revolved by a pulley (not shown) keyed on *d*.

I do not limit myself to the details of construction set forth, as they may be varied without departing from my invention.

Any well-known mechanical substitute by which pressure can be applied to the spindle for forcing and retaining the runner away from the bed-stone may be used in place of the screw.

I do not claim adjusting millstones by means of a screw.

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

The combination, with the spindle and runner, of a spring or yielding step at one end of the spindle bearing the runner toward the bed-stone, and allowing it to yield therefrom, and a set-screw at the other end of the spindle, whereby the minimum of space between the runner and bed-stone may be positively determined.

STEPHEN PARMER WALLING.

Witnesses:

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