J. W. DONNEL.
Millstone-Driver.

No. 207,401 Patented Aug. 27, 1878.

Fig. 1.

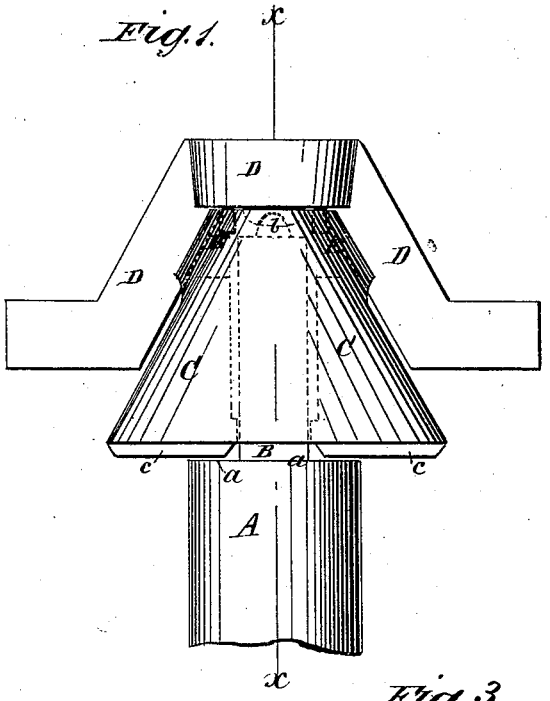


Fig. 2.

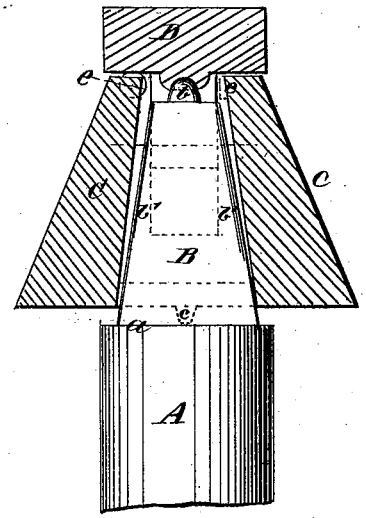
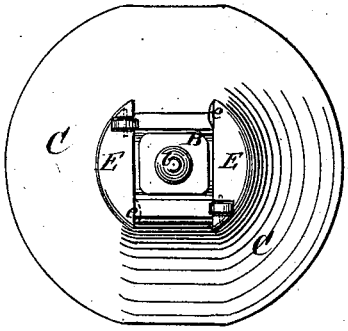


Fig. 3.



WITNESSES:
Francis McArdle.
C. Sedgwick

INVENTOR:
J. W. Donnel
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN W. DONNEL, OF MUSCATINE, IOWA, ASSIGNOR TO HIMSELF AND GARRETT W. SCHREURS, OF SAME PLACE.

IMPROVEMENT IN MILLSTONE-DRIVERS.

Specification forming part of Letters Patent No. **207,401**, dated August 27, 1878; application filed May 25, 1878.

To all whom it may concern:

Be it known that I, JOHN WESLEY DONNEL, of Muscatine, in the county of Muscatine and State of Iowa, have invented a new and Improved Millstone-Driver, of which the following is a specification:

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

In the accompanying drawing, Figure 1 represents a side view of my millstone-driver, with balance-rynd in position upon the upper end of the spindle. Fig. 2 is a vertical section of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a top view of the same, the cone-bail or balance-rynd being removed.

Similar letters of reference indicate corresponding parts.

A is the spindle, and *a* the shoulder on the spindle, around the base of the square B, on which latter the driving-block C is fitted, and on whose upper end the cone-bail D is poised on the cockeye *b*, to support the upper millstone or runner.

The square B on the spindle A is tapering on two opposite sides, *b'*, from the base to the top, and its two other sides are parallel. The opening in the center of the driving-block C is made to fit the square B, at the base of the driver C, so close as to allow of only a slight vibrating motion, but no slip; and at the upper end the said opening is larger than the square B, leaving a space on all four sides between the square and the driver C, so that the driver C does not touch the square B in any point except at the base-line of the former.

The driver C is conical on the outside, to suit the eye of the millstone and allow the grain to be fed down between the stones, and is provided at right angles to the parallel sides of the square B with an edged rib, *c*, projecting downward from and extending across the base of the driver, (being interrupted, of course, in the center by the opening for the square B,) so that the driving-block C is supported by the said rib or knife-edge *c* upon the shoulder *a* on opposite sides of the square B.

Diametrically opposite to each other, on the upper end of the driving-block C, are formed two pairs of side lugs, E, in the opening between each pair of which the inclined arms of the cone-bail or balance-rynd D are held, the point of contact or driving-point being the rollers *e* (or small rises or projections) on the inside of the lugs E. These driving-points *e* are arranged in line with the cock-head or suspension-point *b*, so that a plane drawn through the driving-points *e* would also go through the cock-head *b* and be the plane of suspension of the runner. This being the very plane or line of oscillation of the runner, the leverage due to the distance between the driving-points and the point of suspension is reduced to zero; and the balancing-lever of the runner, being the entire height of the driver C from the knife-edge *c* to the cock-head *b*, is sensitive to the slightest vibration, and allows of the perfect self-adjustment of the runner upon the bed-stone.

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

The combination, with spindle A and balance-rynd D, the former having side-tapered square B *b'*, shoulder *a*, and cock-head *b*, of the conical drive-block C, having points *e* and lugs E, as and for the purpose specified.

JOHN WESLEY DONNEL.

Witnesses:

MYRON W. GRIFFIN,

JOHN S. MCDONALD.