J. J. RYMAL.

MILLSTONE-PROOFS.

No. 188,192. Patented March 6, 1877.

Fig. 1.

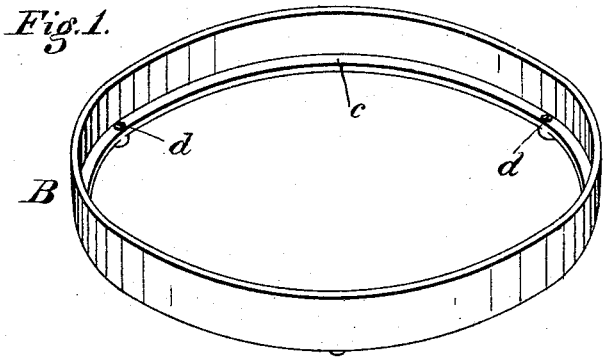


Fig. 2.

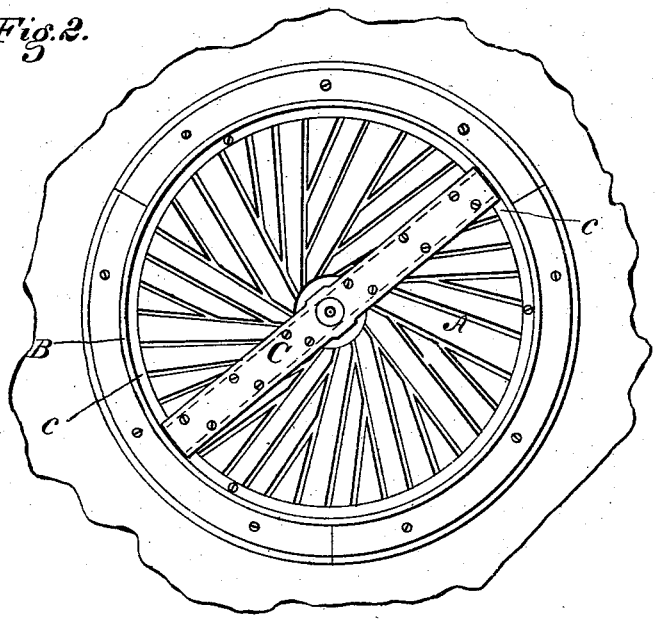


Fig. 4.

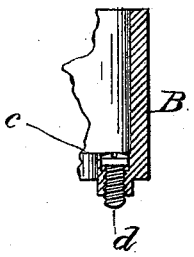
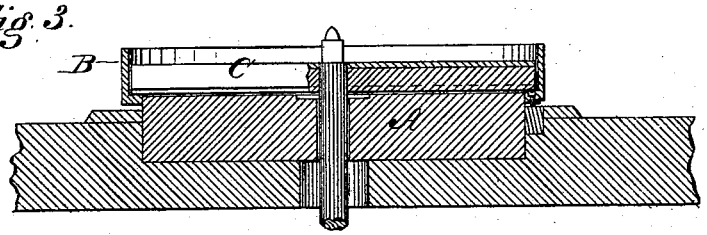


Fig. 3.



Witnesses:

Donn Twitchell

Hall St. Dodge

Inventor:

John J. Rymal.

By his attys.

Dodge & Son.

UNITED STATES PATENT OFFICE.

JOHN J. RYMAL, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN MILLSTONE-PROOFS.

Specification forming part of Letters Patent No. **188,192**, dated March 6, 1877; application filed February 3, 1876.

To all whom it may concern:

Be it known that I, JOHN J. RYMAL, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain Improvements in Millstone-Proofs, of which the following is a specification:

My invention relates to devices for proving or testing the accuracy of the faces of millstones; and consists in the employment of a horizontal ring, or its equivalent, having a true plane face to sustain the ends of the proof and red staffs, as hereinafter described.

The essential feature of the invention is the use of the true adjustable plane, in combination with a millstone, to sustain the staffs and carry them accurately over the grinding-face of the stone.

The form, construction, and manner of adjusting the frame on which the plane face is formed are matters of minor importance, and susceptible of modification; but I prefer to form the plane on the edge of a solid metal ring, adapted to surround the stone, and provided with vertical supporting and adjusting screws, as shown in the accompanying drawings, in which—

Figure 1 represents a perspective view of the ring by which the staffs are supported and guided; Fig. 2, a plan view of the same in use; Fig. 3, a vertical cross-section, showing the ring and red-staff in position on the stone. Fig. 4 represents a vertical cross-section through one side of the plane or ring.

A represents an ordinary bed-stone of a grinding-mill; B, my annular plane or ring, and C the red-staff. The ring is made of suitable size to surround the stone, as shown in Figs. 2 and 3, with a true horizontal shoulder or plane, *c*, around its interior, and with three vertical supporting and adjusting screws, *d*, passing down through it, as shown in all the figures.

In order to prove the stone the ring is placed around the same, suitable bearings provided for the screws to rest upon, and then the screws adjusted until the plane or shoulder *c* coincides exactly with the face of the stone. The proof and red staffs, being then applied across the face of the stone, are supported at both ends upon the face *e*, and guided with perfect accuracy.

By my improvement I am enabled to prove the surface of the stone quickly and easily, and with great precision. Instead of having the staffs of such length as to extend entirely across the stone, they may be sustained at one end by the spindle in the case of the lower stone; but it is considered advisable to have them supported in all cases at both ends upon the ring or plane.

I am aware that it is old to secure a red-staff rigidly to a portable ring to rest upon the face of the stone; but such arrangement is defective, for the reason that when used upon a stone having an uneven surface the ring and staff are thrown out of a horizontal position by the irregularities in said surface.

My invention differs from the above in having the plane which sustains and guides the staff supported independently of the face of the stone, and arranged to remain stationary while the staff is moved upon it over the face of the stone, so that the staff is guided with perfect accuracy, notwithstanding the unevenness of the stone.

Having thus described my invention, what I claim is—

1. In combination with a millstone, a stationary plane arranged to sustain and guide a movable red-staff in its passage over the face of the stone, substantially as shown and described.

2. The ring B, constructed with a true face, *c*, and provided with the screws *d*, substantially as shown and described.

3. The combination of the millstone A, the stationary adjustable plane or ring B, and a movable staff, C, bearing upon and supported by the plane, substantially as shown and described.

JOHN J. RYMAL.

Witnesses:

E. H. BOTTUM,

JOHN F. BRUCE.