J. W. HERCHELRODE.

Circular Metal-Proof Staffs for Testing Millstones.

No. 208,239. Patented Sept. 24, 1878.

Fig. 1.

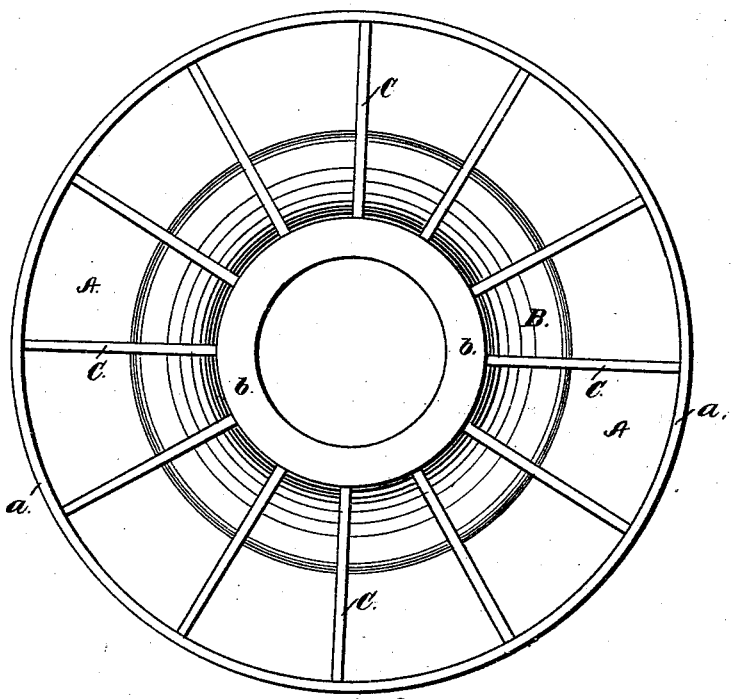
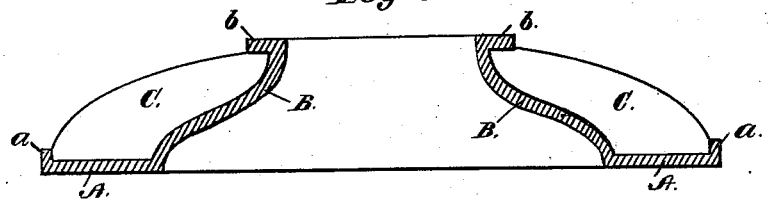


Fig. 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

JOHN W. HERCHELRODE, OF DAYTON, OHIO.

IMPROVEMENT IN CIRCULAR METAL PROOF-STAFFS FOR TESTING MILLSTONES.

Specification forming part of Letters Patent No. **208,239**, dated September 24, 1878; application filed July 1, 1878.

To all whom it may concern:

Be it known that I, JOHN W. HERCHELRODE, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Circular Metal Proof-Staffs; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention is an improvement in the construction of circular metal proof-staffs for dressing millstones, whereby strength and rigidity are obtained with comparative lightness.

In making these circular staffs of metal great strength and rigidity are necessary, in order to prevent them from warping or sagging.

The novelty of my invention consists in supporting the annular dressing-face from an elevated central ring or hub, and in other details, as will be herewith set forth and specifically claimed.

In the accompanying drawing, Figure 1 is a plan view of my improvement. Fig. 2 is a central sectional view in side elevation.

A is the annular testing-face, provided with a vertical flange, *a*, on its outer face. Extending from the inner rim of the testing-face is a dome-shaped portion, B, of the form indicated. The top of this dome terminates in a central ring or hub, from which a horizontal flange, *b*, projects, as shown. This forms the staff proper and is braced by vertical radial ribs or flanges C, which are arched on their top edges, and are coincident on their under edges with the dome and testing-plate, as seen in Fig. 2. This completes the staff, which is molded in one piece in any suitable or convenient manner.

By supporting the testing-plate from an elevated center, as here shown, I produce great rigidity, and very effectually prevent the sagging or warping of the staff.

This supporting the plate from a central elevated hub is the essential feature of my invention, and while the dome-shaped portion adds stiffness to the whole, still it may be dispensed with. When so dispensed with, the ribs should have substantially the same configuration as is herein shown, and may proceed from a central ring or hub, which would connect their inner ends.

The height of this ring or hub may vary. For a staff of forty-eight inches' diameter it should be elevated about eight or ten inches above the plane of the testing-plate. For staffs of less diameter it would not be elevated so much.

I am aware that it is not new to construct a circular proof-staff having a central hub with radial ribs, when such ribs have their bottom edges on a level with the testing-plate.

What I do claim is as follows:

1. A circular metal proof-staff consisting of an annular testing-plate supported and held rigid by ribs proceeding from an elevated hub or ring whose bottom edges are elevated and inclined to form a dome-shaped or concave recess beneath them, as set forth.

2. A circular metal proof-staff consisting of an annular testing-plate supported and held rigid by a central dome and radial ribs, substantially as set forth.

Witness my hand this 26th day of June, A. D. 1878.

JOHN W. HERCHELRODE.

Witnesses:

CHAS. M. PECK,

WM. RITCHIE.