

F. BELLINGER:
Millstone Dress.

No. 20,029.

Patented April 27, 1858.

Fig: 1.

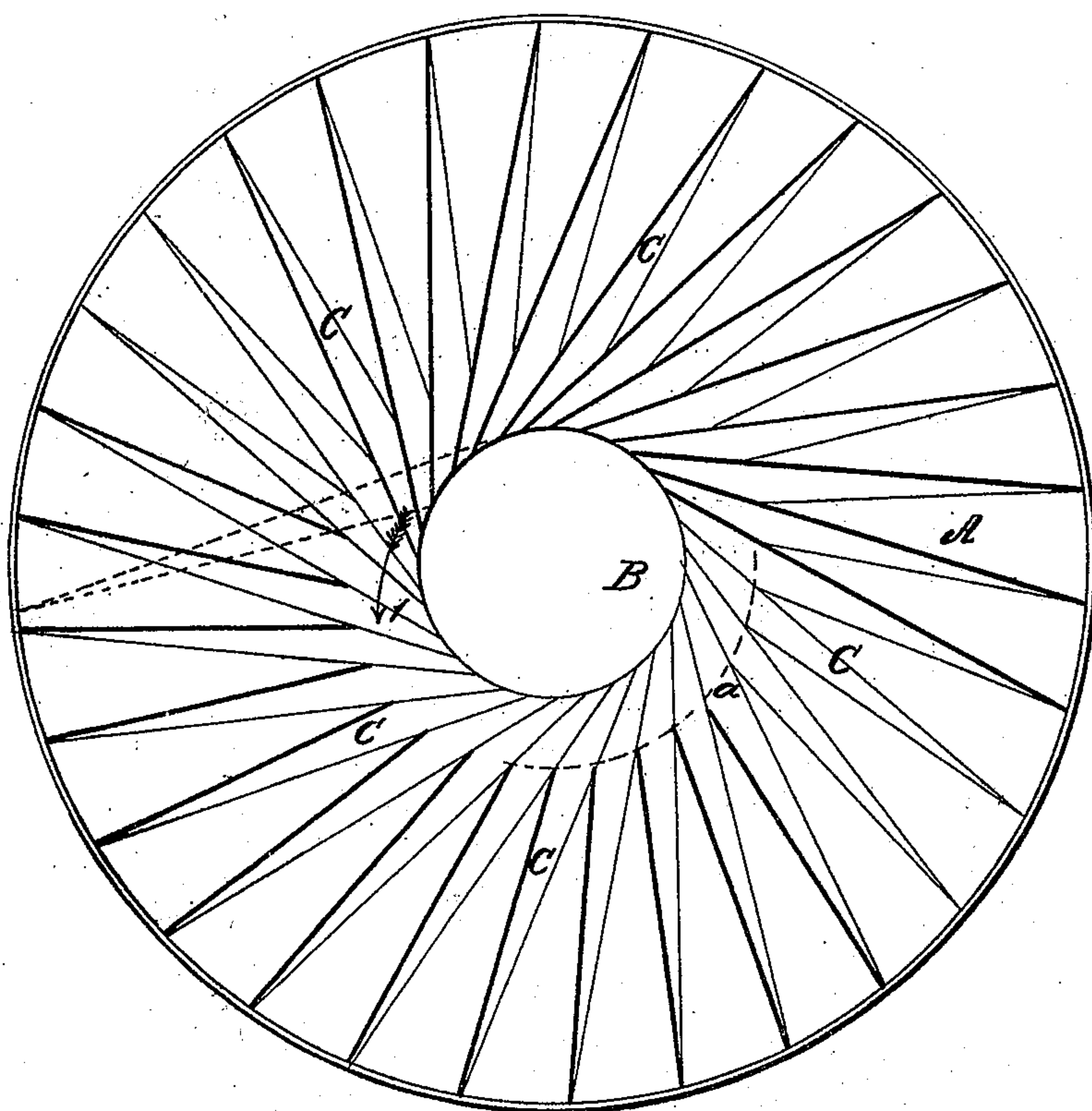
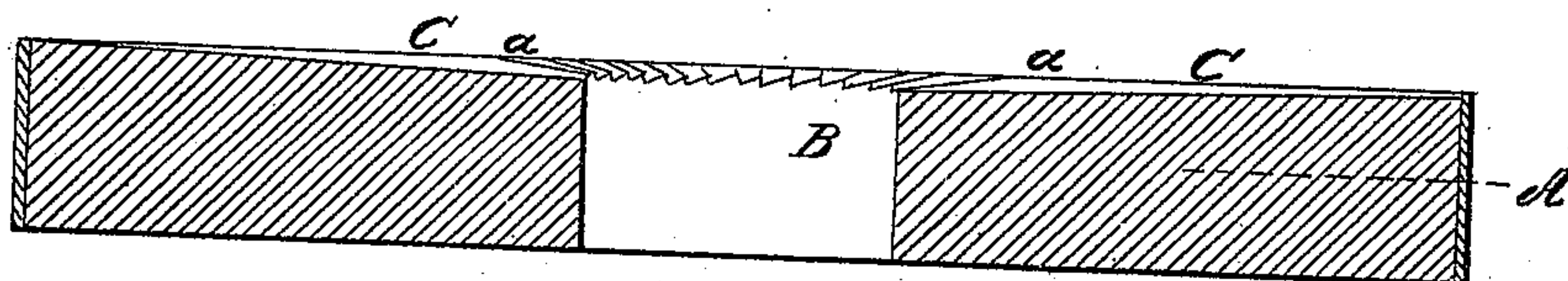


Fig: 2.



UNITED STATES PATENT OFFICE.

FRANKLIN BELLINGER, OF LOCKPORT, NEW YORK.

MILLSTONE-DRESS.

Specification of Letters Patent No. 20,029, dated April 27, 1858.

To all whom it may concern:

Be it known that I, FRANKLIN BELLINGER, of Lockport, in the county of Niagara and State of New York, have invented a new and Improved Millstone-Dress; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a face view of a mill stone showing my invention. Fig. 2 is a vertical central section of do.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in having a series of taper furrows cut into the stone tangentially with the eye and extending from the eye to the periphery, the furrows gradually diminishing in depth as well as in width from a circle near the eye and concentric therewith, toward the periphery as hereinafter fully shown and described, whereby a certain proportion of the area of the faces of the upper and lower stones are made to work in contact at different points according to the speed of the runner at such points, thereby causing the stones to wear evenly and also causing the stones to perform their work with a speed commensurate with their capacity to receive the grain.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents one of a pair of mill stones, the upper stone or runner.

B, is the eye of the stone and C, are the furrows. These furrows it will be seen by referring to Fig. 1, are of taper form gradually diminishing in width from a circle *a*, which is near the eye B, and concentric therewith. The furrows C, terminate in points at the periphery of the stone as plainly shown in Fig. 1. The furrows C, vary in depth from the circle *a*, to the periphery of the stone as plainly shown in Fig. 2, the bottoms of the furrows near the periphery of the stone being nearly flush with its face. The face of the stone between the circle *a*, and the eye B, is inclined toward the eye as plainly shown in Fig. 2. It will be seen by referring to Fig.

1, that at the circle *a*, the furrows C, join each other and that they are about tangential with the eye.

Both the upper and lower stones have the same dress, with the exception that the lower stone has a perfectly level face, the portion corresponding to that between the circle *a*, and the center of the stone not being inclined as shown in the upper stone or runner A.

From the above description it will be seen that the stones at their periphery have the greatest bearing surface and the area of the bearing surfaces gradually diminish from the periphery to the circle *a*, consequently it will be seen that the area of the bearing surfaces of the stones will be in proportion to the speed of the runner, for instance, as the speed gradually diminishes from the periphery to the center so also does the bearing surfaces, and the stones therefore will wear evenly. It will also be seen that as the bearing surfaces of the stones gradually increase from the circle *a*, toward the periphery, the grinding surface stones are in contact at their edges or peripheries the meal will be evenly ground, no improperly ground parts being allowed to escape. The stones therefore will grind rapidly with a speed commensurate with their capacity to receive the grain, said capacity being considerable on account of the opening at the eye or inclined surface between the circle *a*, and the eye. And this open space between the stones near the eye permits of the grain being well ventilated or cooled and prevented from heating at the points where it begins to get crushed, a contingency which frequently occurs, owing to the dress of the ordinary stones. The stones where this dress is used may be readily kept in repair, as less dressing than usual is required.

I would remark that the bottoms of the furrows C, are inclined as usual, to form a cutting edge at one side, and that a greater or less number of furrows may be employed according to the size or diameter of the stones. I would also remark that one of the lower stone furrows is indicated in red, in Fig. 1, showing the operation of the furrows where the stones are in contact,

the arrow 1, indicating the direction of the rotation of the runner.

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

The furrows C, cut into the stones tangentially with the eye D, and gradually diminishing, both in depth and width, from the eye to the periphery where they termi-

nate in points, the space between the circle 10 a, and the eye B, of the runner A, being inclined or made open substantially as and for the purpose set forth.

FRANKLIN BELLINGER.

Witnesses:

A. CLARK,
LESTER G. LEWIS.