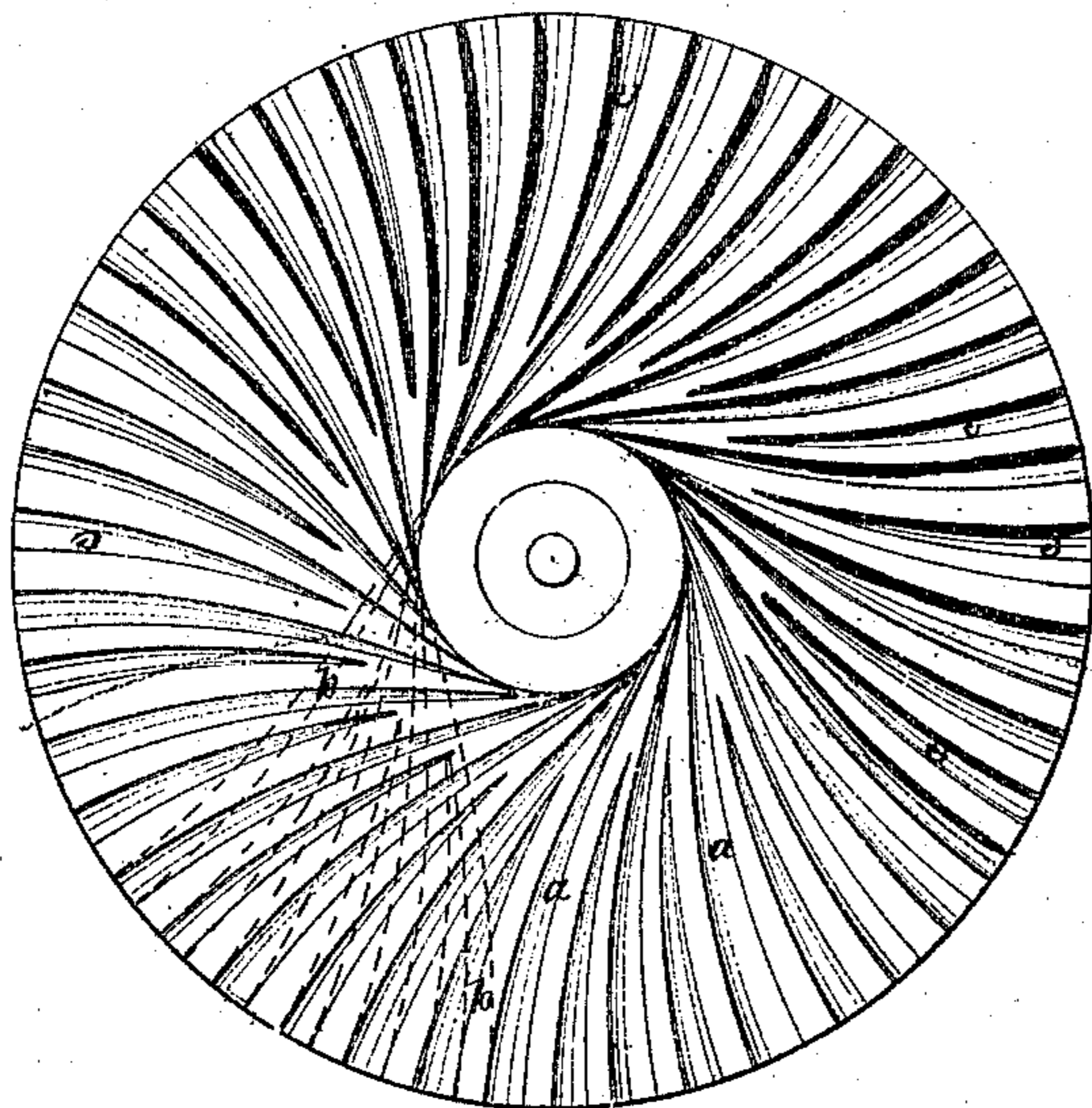


J. FAIRCLOUGH.

Millstone Dress.

No. 97,373

Patented Nov. 30, 1869.



Witnesses:

A. Bennekerdorf.

Geo. L. Brooks

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# United States Patent Office.

JOHN FAIRCLOUGH, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 97,373, dated November 30, 1869.

## IMPROVED MILLSTONE-DRESS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, JOHN FAIRCLOUGH, of St. Joseph, in the county of Buchanan, and State of Missouri, have invented a new and improved Millstone-Dress; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing.

The object of this invention is to provide an arrangement of the furrows or "dress" of millstones, whereby the draught will be greatest at the eye, where the movement of the grinding-surfaces is less, gradually diminishing toward the periphery as the movement of the said surfaces increases.

The drawing represents a plan view of a bed-stone, showing my improved dress, with dotted lines, showing the relation of the furrows in the upper stones to those in the lower one.

I have found, by experiment, that by this arrangement, very much better results may be obtained than by the old method of increasing the pitch toward the periphery, for the centrifugal action very greatly increases in the direction of the periphery, owing to the greater velocity as the diameter increases, which, accelerated by an increasing pitch, discharges the meal too soon, and before it is finished.

Moreover, the grain is designed to be only roughly crushed at or near the eye, where the surfaces are contracted, preparatory to the action of the more outward smoother grinding-surfaces. This crushing is rapidly done, and the broken grain should be delivered quickly to the outer grinding-surfaces, which are much greater in area, along which the movement should be slower, in order to equalize the quantity of grain between the stones. The movement should also be slower, to give the best results in finishing the

work uniformly, and without forcing, by keeping the stones close together, which causes heating.

I have found, that with this improved dress, the stones may be run "higher," and better results, and more even and finer grinding effected, than with any other dress.

*a* represents the long furrows of the bed-stone, which, at the eye, are tangential thereto, or nearly so, projecting in the direction of the movement of the running stone, and gradually curving toward the periphery, and terminating in nearly radial lines.

The dotted lines represent the furrows of the runner similarly formed, but pitched in the opposite direction.

The line described by the furrows *a* necessarily leaves a plane-surface between them, and one of gradually increasing width from the eye to the periphery of the stone.

To utilize this portion, or to form additional grinding-edges, I provide the short furrows *c*, which are, throughout their length, of form corresponding to the long furrows *a*.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The furrows *a*, describing tangential lines at their inner ends, and thence curving slightly toward the periphery, where they terminate in radial lines, as and for the purpose set forth.

2. In combination with the furrows *a*, as described, the short furrows *c*, formed in the ribs between *a a*, and made of corresponding form throughout their length, as shown.

JOHN FAIROLOUGH.

Witnesses:

FRED. WM. SCHMIDT,  
J. B. MILLET.