

D. W. THOMPSON.

Millstone Dress.

No. 44,471.

Patented Sept. 27, 1864.

Fig. 1

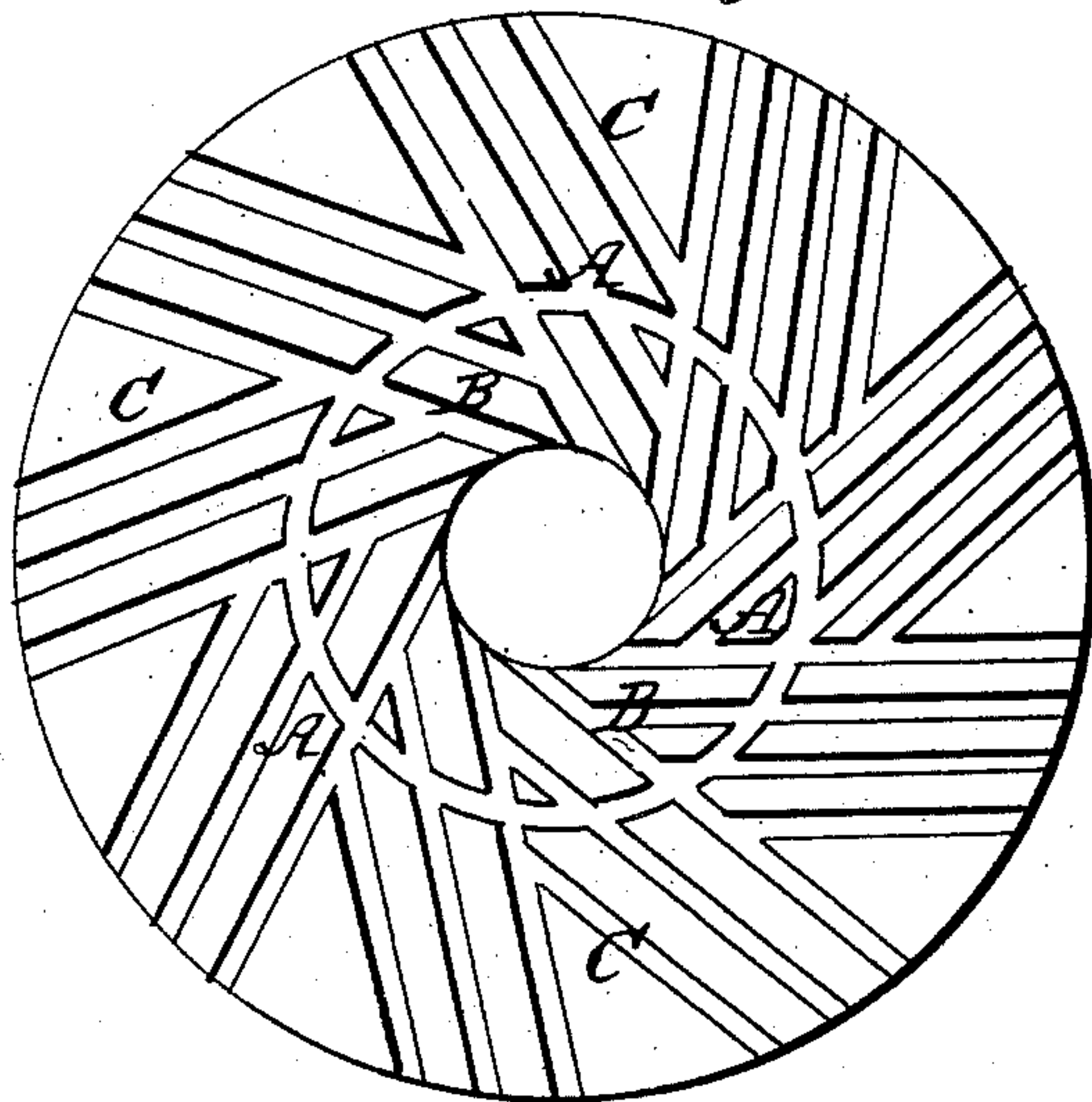
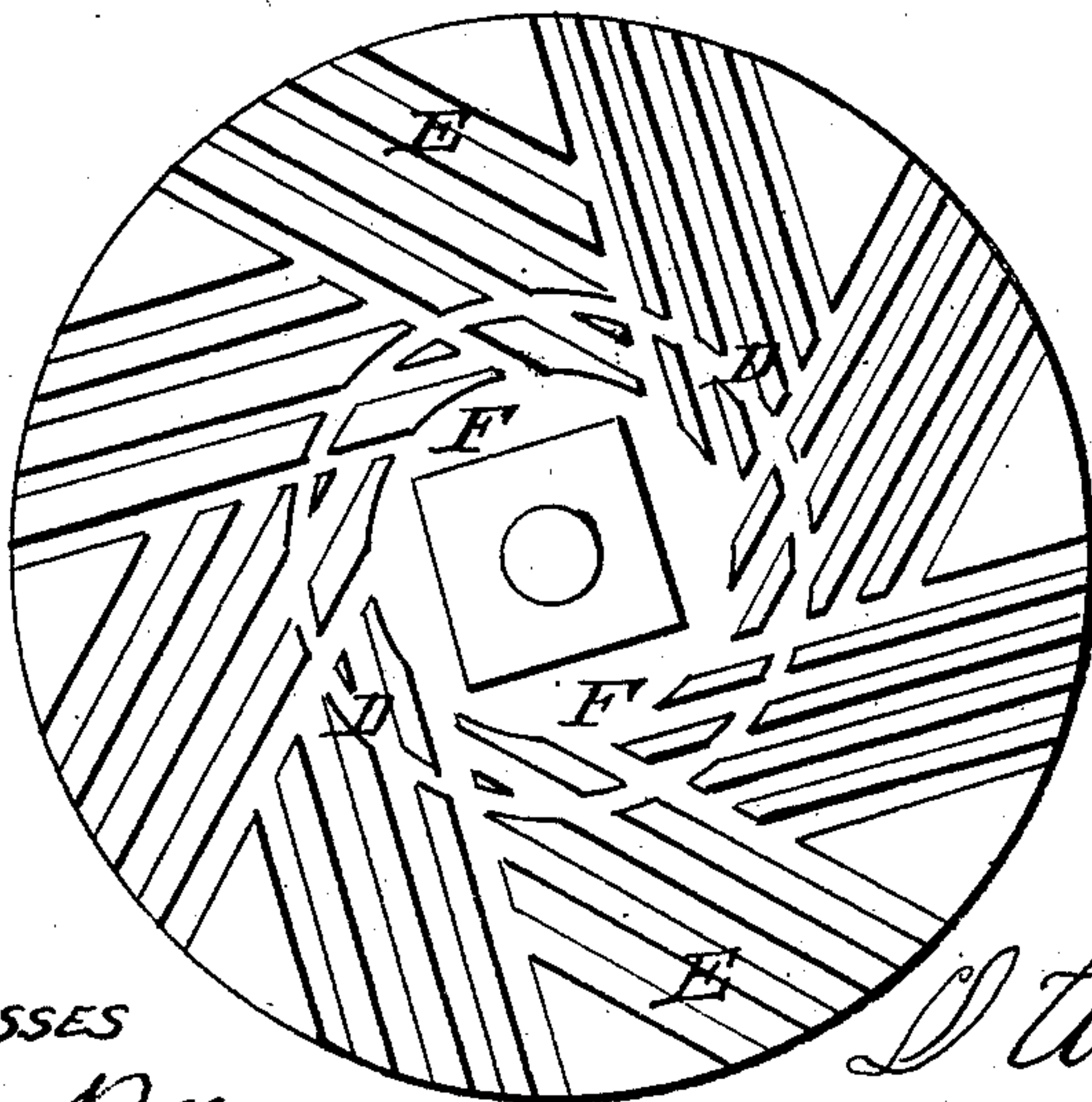


Fig. 2.



WITNESSES

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DAVID W. THOMPSON, OF SOMERSET, PENNSYLVANIA.

IMPROVEMENT IN MILLSTONE-DRESS.

Specification forming part of Letters Patent No. 44,471, dated September 27, 1864.

To all whom it may concern:

Be it known that I, DAVID W. THOMPSON, of the town of Somerset, in the county of Somerset and State of Pennsylvania, have invented a new and useful Improvement in Dressing Millstones; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view of a runner with my dress applied; and Fig. 2, a plan view of the bed-stone, showing my invention.

Various modes of giving a proper ventilation between millstones have been attempted; but none to my knowledge were properly effective before my invention, which consists in surrounding the eye of the runner with an annular-grooved space cut at nearly a central distance from the axis in the face of the stone, when the bed-stone, also, is dressed with an annular groove of the same diameter as that in the runner and parallel therewith, both annular grooves intersecting the leading furrows of the dress.

In the known modes of dressing millstones it is found almost impossible to cause the grain fed to the stone to be so equally distributed that all the furrows shall share equally in the work performed; and my invention further consists in the combination of the annular grooves in the runner and bed stones with the leading-grooves of any dress, when intersected as described to effect a more even and uniform distribution of the grain, so as to enable each furrow to perform its just proportion of the work.

In the accompanying drawings my invention is shown as applied to a pair of four-foot stones, the scale being one inch to the foot. The annular groove A in the runner, Fig. 1, of a stone of this size is situated nearly a foot from the axis of the stone, and is about one inch in width and of any proper depth to give the required ventilation. From the inside of the annular groove to the eye of the stone the surface B is dished to a depth suitable to permit the entrance of the grain between the stones. The outside of the annular groove C is in a plane surface save where furrowed in radial lines for the usual dress, which divides the whole surface of the stone into furrows and lands. The bed-stone, Fig. 2, has its annular groove D situated at the same distance from its axis as that of the annular groove in

the runner, and is of the same width, so that the one shall rotate precisely over the other, but its depth is only that of the furrows in the dress. The surface E of the bed-stone is in a plane, with no other depression than that of the furrows which constitute the ordinary dress, its whole surface being divided between grooves and lands. The leading-furrows of both stones cross their annular grooves at different angles, there being nine leading furrows in the runner while there are but eight in the bed-stone, as shown in the drawings. The radial furrows from the leading ones vary in width as do the lands, and in the drawings a variety of sectional dresses are shown; but all are well adapted to my improvement, which may also advantageously be used with other forms of dress or modes of arranging the lands and furrows in both the runner and bed-stone.

In operation, the annular groove in the runner carries so large a quantity of air as to give ample ventilation to the stones and cause the ground flour or meal to be delivered in a cooler and more perfectly disintegrated condition than has hitherto been possible, while the intersection of the leading-furrows with the annular grooves causes each to receive therefrom an equal or nearly equal supply of the grain fed to the stones, and thus permits the runner always to rotate in a perfectly horizontal plane and both stones to do an equal amount of work in each part, and thus enables the mill to accomplish a larger quantity of work with the same power in a given time, and to make flour or meal of a much improved quality from the same stock.

It is obvious that my invention is applicable to other grinding millstones than those used exclusively for grain.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Cutting, in millstones for grinding, annular grooves, whether in the runner, in the bed-stone, or in both, substantially as and for the purposes described.

2. The combination of the annular groove with the leading-furrows of any dress, when the one intersects the other, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name.

DAVID W. THOMPSON.

Witnesses:

I. O. KIMMEL,
ROBERT LAUGHTON.