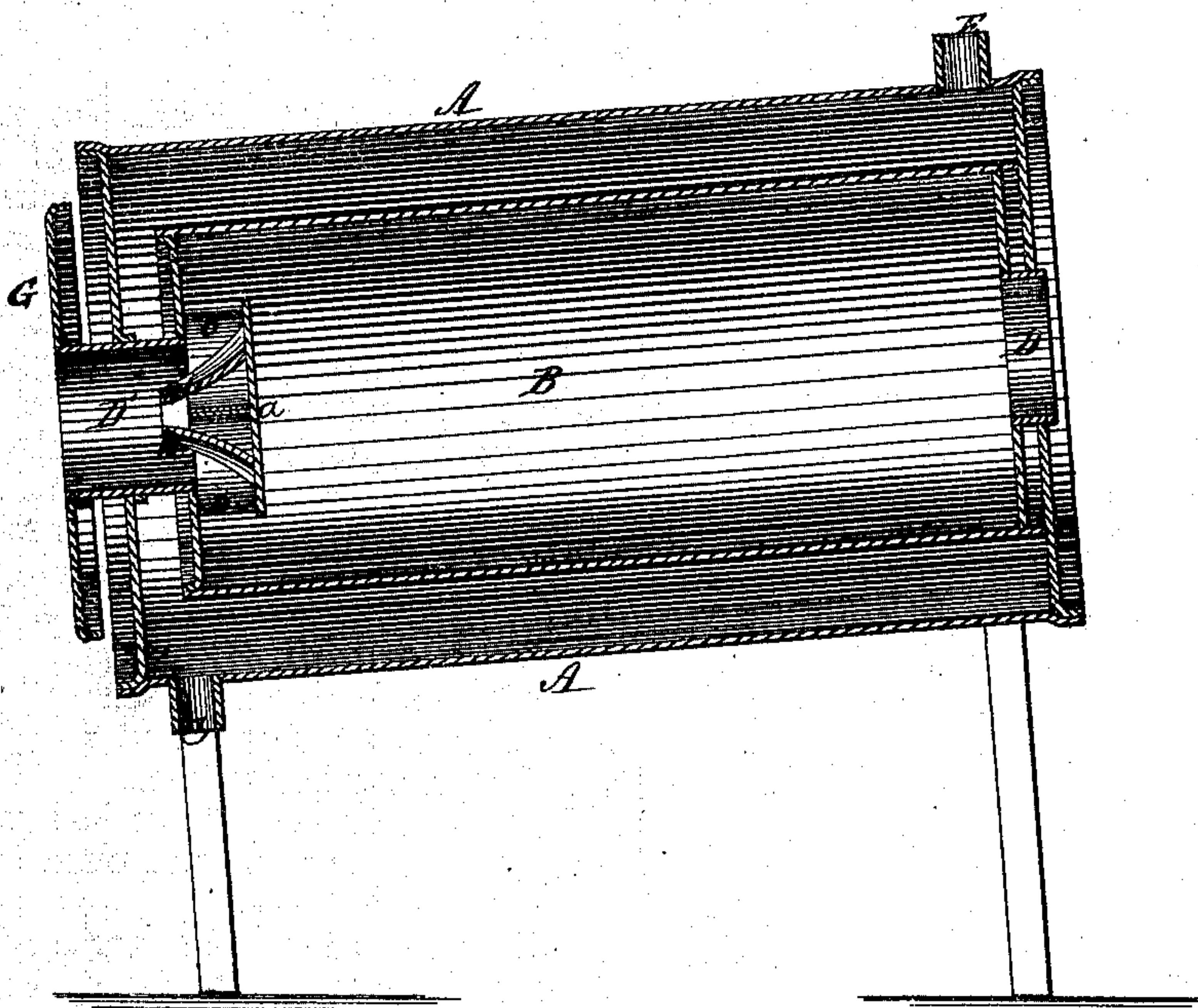


R. KIDD.

Improvement in Driers.

No. 129,736.

Patented July 23, 1872.



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD KIDD, OF MONTEZUMA, INDIANA.

IMPROVEMENT IN DRIERS.

Specification forming part of Letters Patent No. **129,736**, dated July 23, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, RICHARD KIDD, of the town of Montezuma, in the county of Parke and State of Indiana, have invented certain new and useful Improvements in Flour and Meal Driers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for drying meal by steam, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which is represented a longitudinal section of my flour and meal drier.

A represents a cylinder of any suitable dimensions, placed in an inclined position, as shown, and provided with an interior revolving cylinder, B, through which the meal passes, and is revolved or turned by the rotation of the said interior cylinder. The steam enters the outer or stationary cylinder at C and passes between the two cylinders—that is, around the interior or revolving cylinder B—and escapes at E. The interior cylinder B is provided with hollow journals D and D', passing through the heads of the exterior cylinder A. The meal passes in by a suitably-arranged spout through the journal D into the cylinder B, and out through the other journal D'. The latter journal is upon the head of the cylinder which is lowest, the entire machine being inclined, as above mentioned, and on the inside of this head is a device for discharging the meal. This device consists of a circular plate, *a*, of somewhat larger diameter than that of the

hollow journal D'. From the circumference of this plate extend a series of buckets, *b b*, connected to the head of the cylinder, and the inner ends of the buckets terminating in the sides of a pyramidal projection, *d*, the base of which is attached to the plate *a*, and the apex projects through the hollow journal. The sides of this pyramid are made concave, and the buckets connect with the angles or edges of the same, the whole thus forming a series of channels, through which the meal readily discharges itself from the revolving cylinder B. The cylinder B is driven by a pulley, G, on one of the hollow journals. In the construction of the machine the parts and joints should be made steam-tight, and the journals provided with stuffing-boxes.

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

1. The device for discharging the meal, consisting of the disk *a*, buckets *b b*, and the pyramid *d* having concave sides, all constructed and arranged substantially as and for the purposes herein set forth.

2. The combination of the inclined stationary cylinder A and the interior revolving cylinder B, turning upon hollow journals D D', and forming a steam-space between it and the exterior cylinder, substantially as and for the purposes herein set forth.

3. The combination of the cylinders A and B, hollow journals D D, disk *a*, buckets *b b*, and pyramid *d*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

RICHARD KIDD.

Witnesses:

THOMAS GLEASON,
JOSEPH BURGHER.