

J. H. GLOVER.
Hanging Millstones.

No. 28,362.

Patented May 22, 1860.

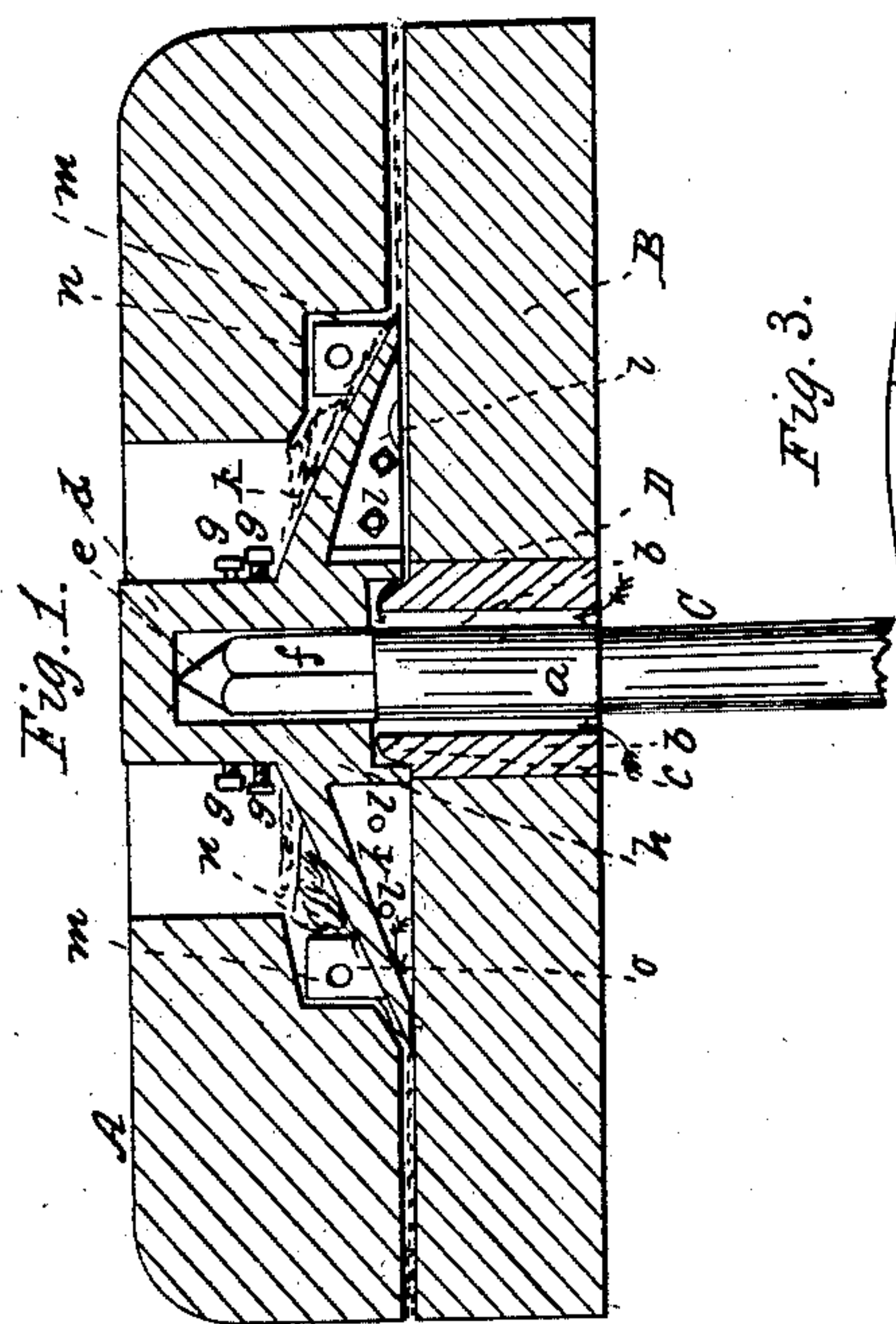


Fig. 3.

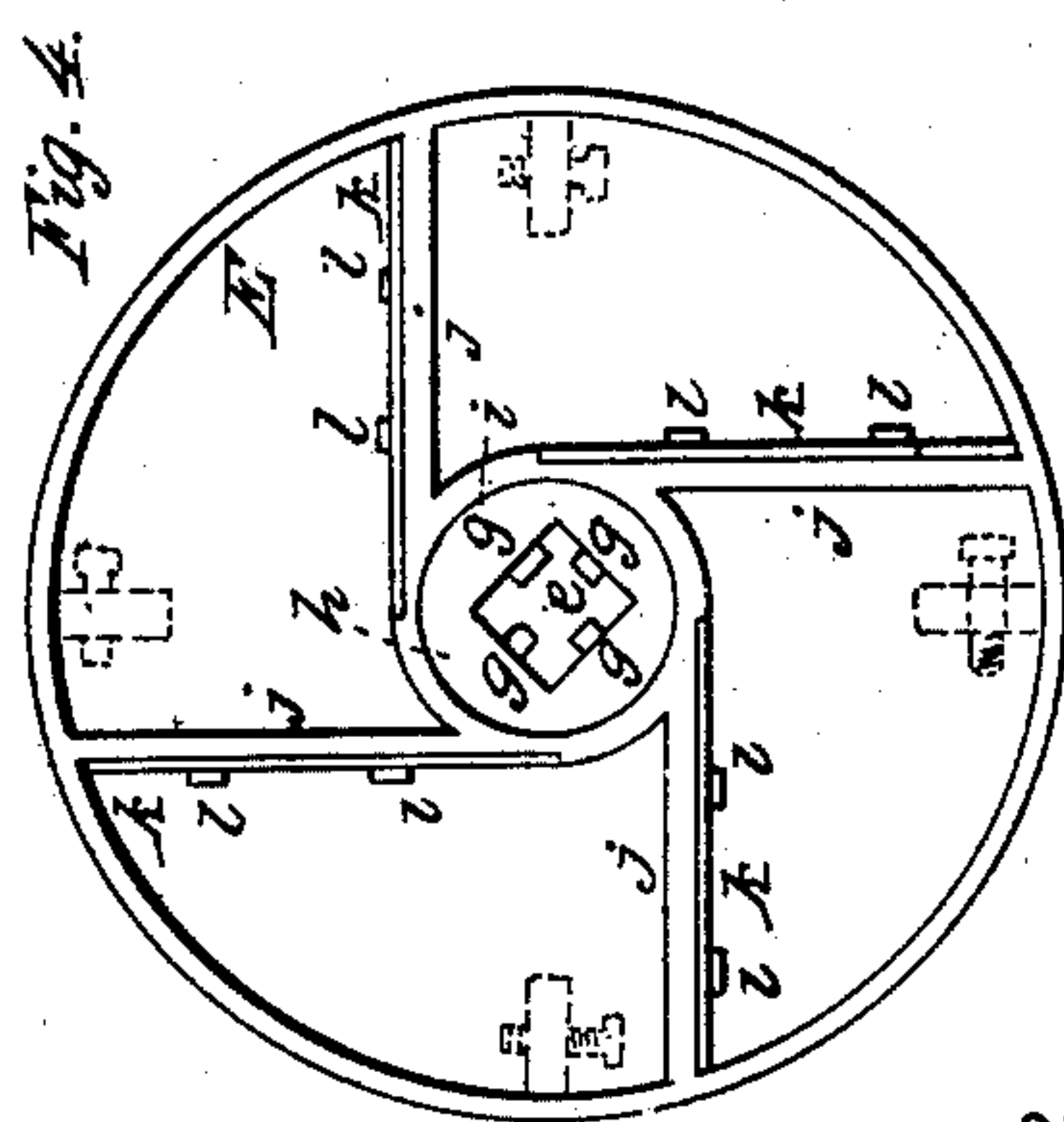
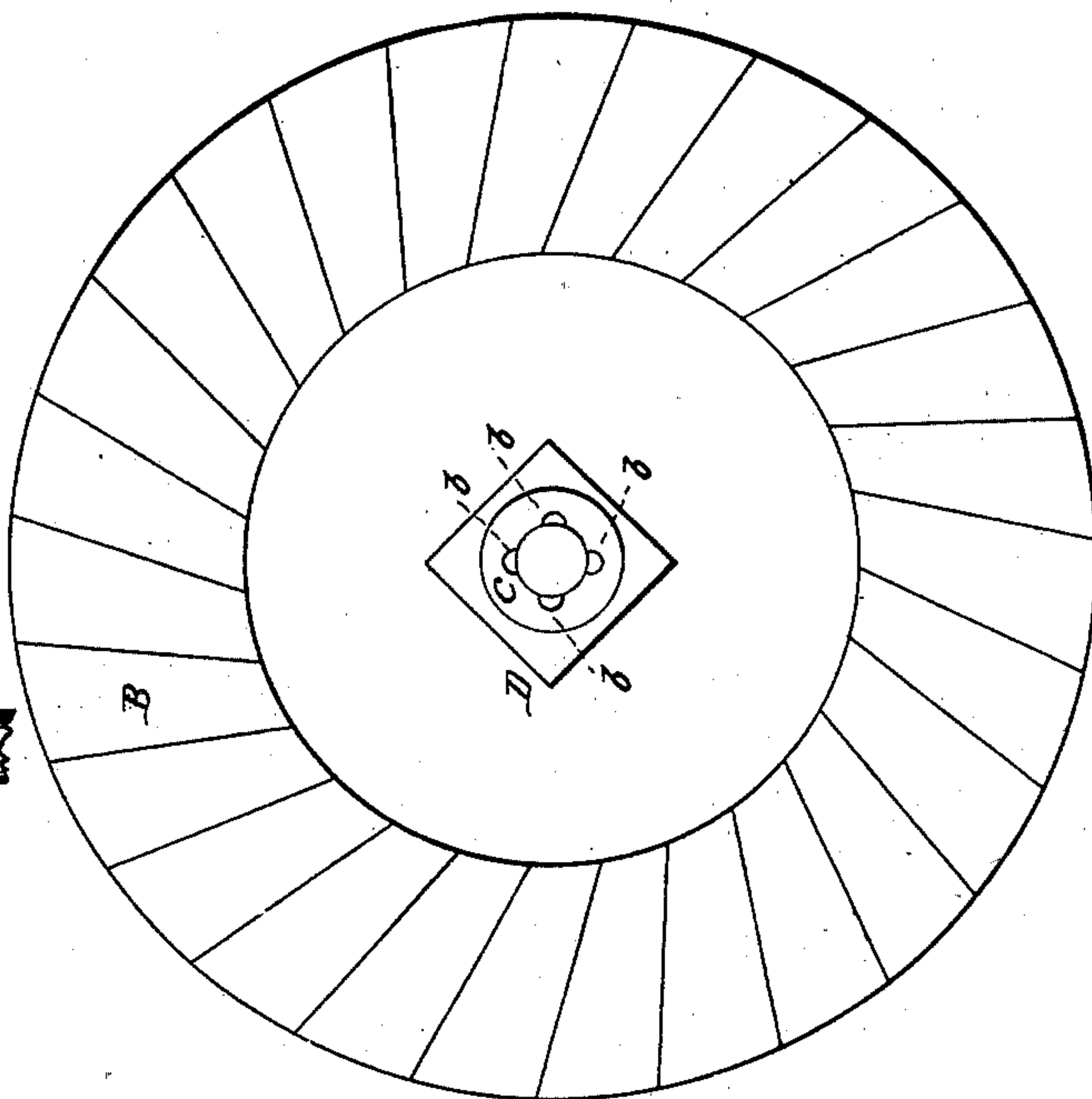
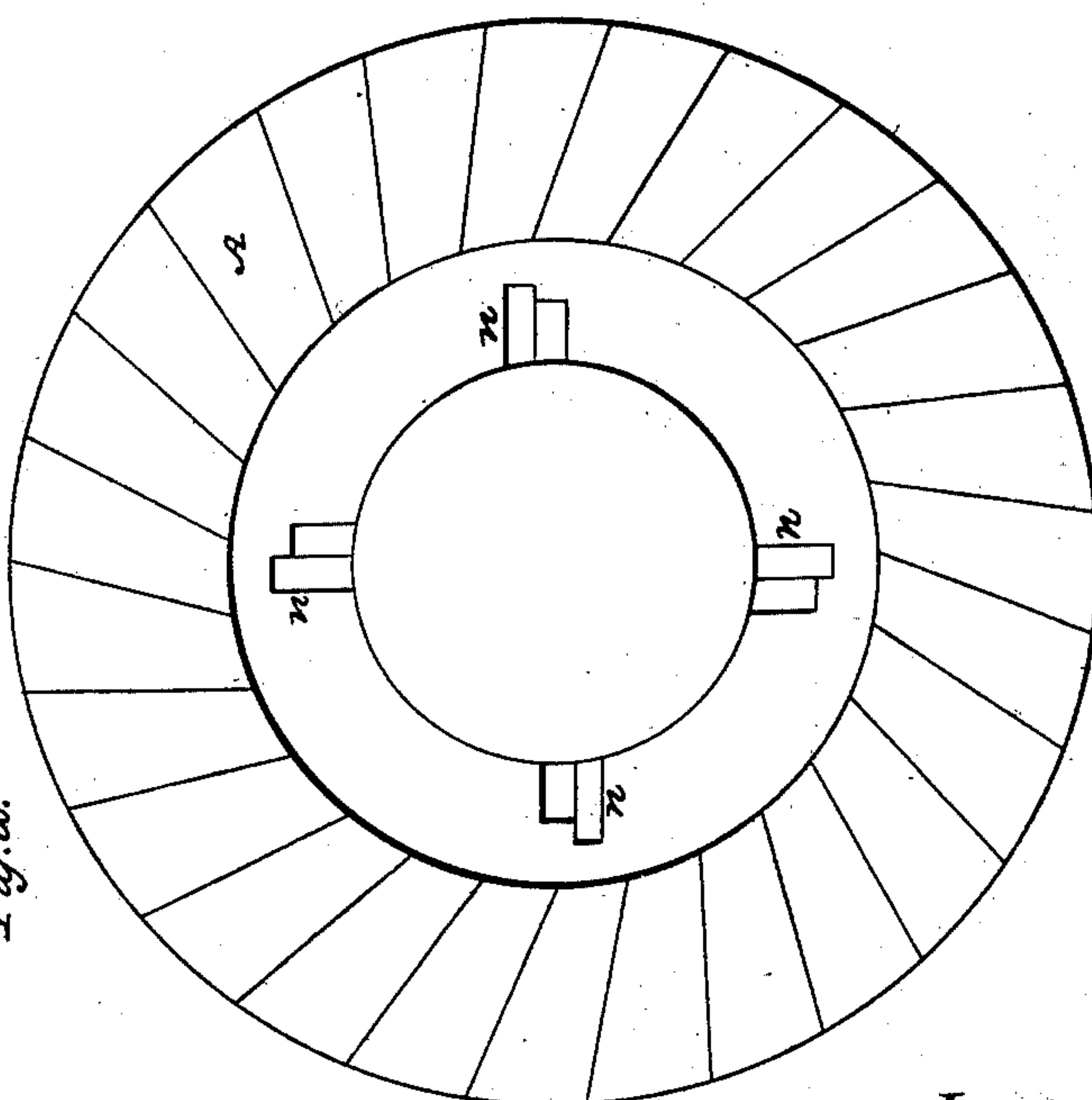


Fig. 2.



Witnesses:
Edward Haigren
William Glover

Inventor:
J. H. Glover.

UNITED STATES PATENT OFFICE.

J. H. GLOVER, OF GLASGOW, KENTUCKY.

HANGING MILLSTONES.

Specification of Letters Patent No. 28,362, dated May 22, 1860.

To all whom it may concern:

Be it known that I, J. H. GLOVER, of Glasgow, in the county of Barren and State of Kentucky, have invented certain new and useful Improvements in the Hanging and Driving Mechanism Pertaining to Millstones; 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 vertical central section of a pair of mill stones provided with my invention. Fig. 2, is a detached face view of the runner. Fig. 3, is a detached view of the bed stone. Fig. 4, is a detached inverted plan of the shield, driver, &c.

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

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

A, represents an upper mill stone or runner B, the lower or bed stone which is stationary. C, is the spindle the collar *a*, of which is fitted in the bush D, at the center of the bed stone B. The collar *a*, is fitted snugly in the bush but four half round holes *b*, are made through the bush parallel with the collar and adjoining it so as to form oil and air passages directly through the bush, see Figs. 1 and 3. The bush D, extends a little above the surface of the bed stone and this projecting portion *c*, is of circular form as shown clearly in Fig. 3. The spindle C, is of metal of course and the bush D, may be of wood or soft metal.

E, represents a conical shell which has a cylindrical apex or head *d*, in the under side of which a square opening *e*, is made to receive the upper part *f*, of the spindle C, which is also square and a trifle smaller in diameter than the opening. The upper end of the part *f*, of the spindle is pointed and the shell E, rests on said point. Through the head *d*, of the shell E, set screws *g*, pass horizontally and by means of these screws the shell and runner may be properly adjusted on the spindle in a balanced state.

The under side of the shell E, has a head

h, projecting downward to a level with its lower ends. This head has a circular recess *i*, made on its under surface to receive the projection *c*, of the bush D and from the head *h*, four tangential arms *j*, extend to the edge of the shell. Each arm *j*, has a plate *k*, attached to it at one side by means of set screws *l*, which pass through oblong slots in the plates *k*, into the arms *j*. This attachment of the plates *k*, to the arms *j*, admits of a vertical adjustment of the former so that their lower edges may be brought nearer to or farther from the stone as may be desired.

On the upper surface of the shell E, near its edge there are vertical projections *m*, which fit into recesses *n*, in the runner A. The projections *m*, have each a set screw *o*, passing through them to regulate the bearings of the shell against the sides of the recesses *n*. The runner A, around its eye is made concave in order to receive the shell E, and sufficient space is allowed between the shell and the runner to allow the grain to pass freely between the stones. The runner rests on the projections *m*, and the shell E, consequently receives the weight of the runner A, which is transferred to the top of the spindle C. The shell may be of cast iron, malleableized if necessary.

The operation is as follows:—The shell E, it will be seen covers the bush D, and the projections *m*, of the shell fitting in the recesses *n*, cause it to serve as a driver, the screws *o*, permitting of a perfect bearing of the shell against the stone A. In consequence of the spindle fitting in the shell as shown, the latter serves also as a balance iron, the screws *g*, being adjusted to bear against the part *f*, of the spindle when the stone is balanced. The plates *k*, serve a two fold purpose, they brush or scrape out all dust, grit, etc., that may chance to pass underneath the shell and also serve as fans to produce a blast up through the bush D, and between the stones A, B, thereby keeping the spindle in a cool state, favoring lubrication by keeping the oil in the bush around the spindle, and also keeping the stones in a cool state.

I do not claim broadly the forcing of a draft of wind through or between a pair of mill stones, for this has been previously done; but,

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

The employment of the adjustable conical shell E, when arranged and constructed

as shown in combination with the stones A, B, as and for the purposes herein set forth and described.

J. H. GLOVER.

Witnesses:

WILLIAM GLOVER,

EDWARD MAYNARD.