

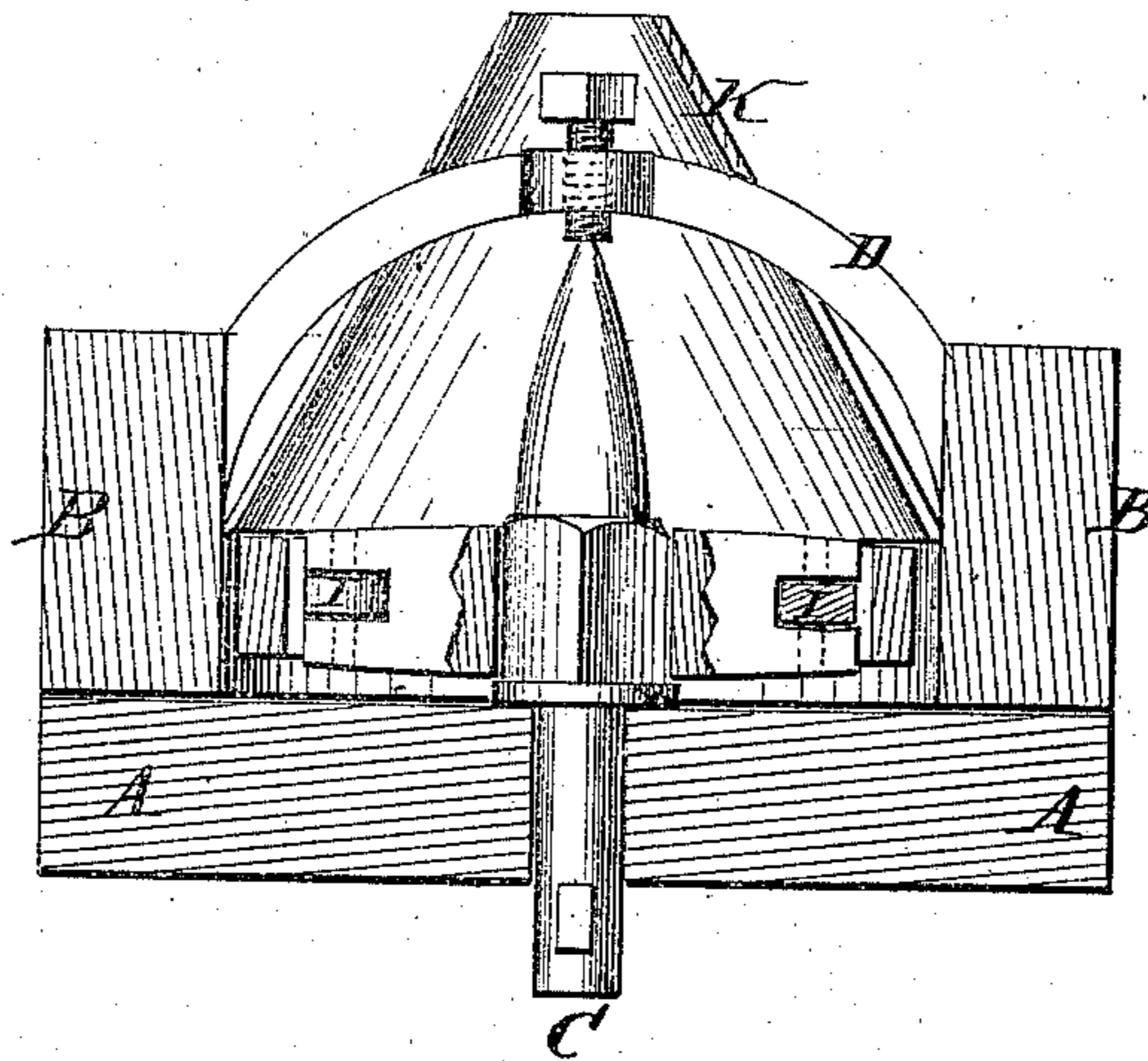
J. J. TOMLINSON.

Millstone Driver.

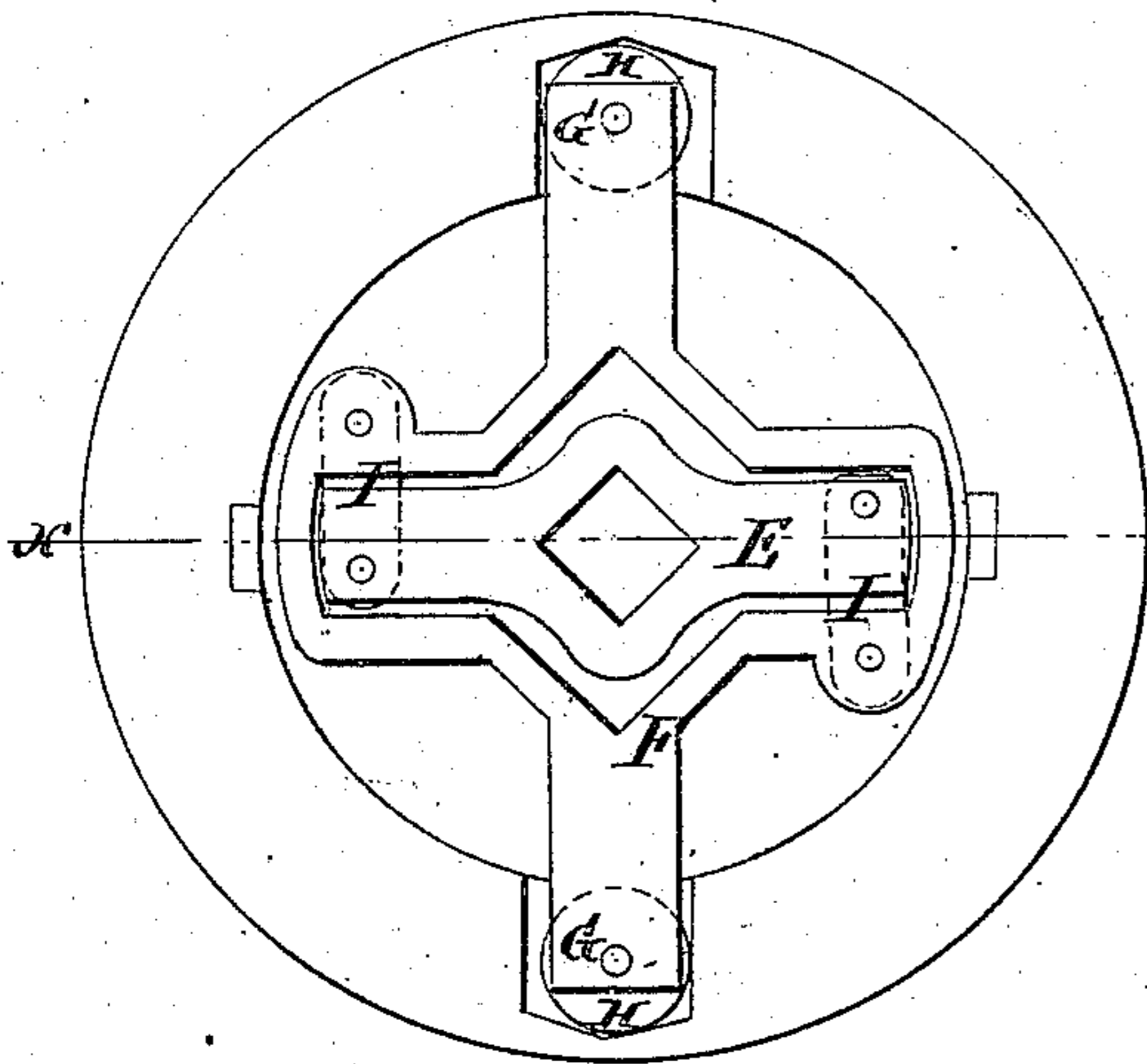
No. 111,277.

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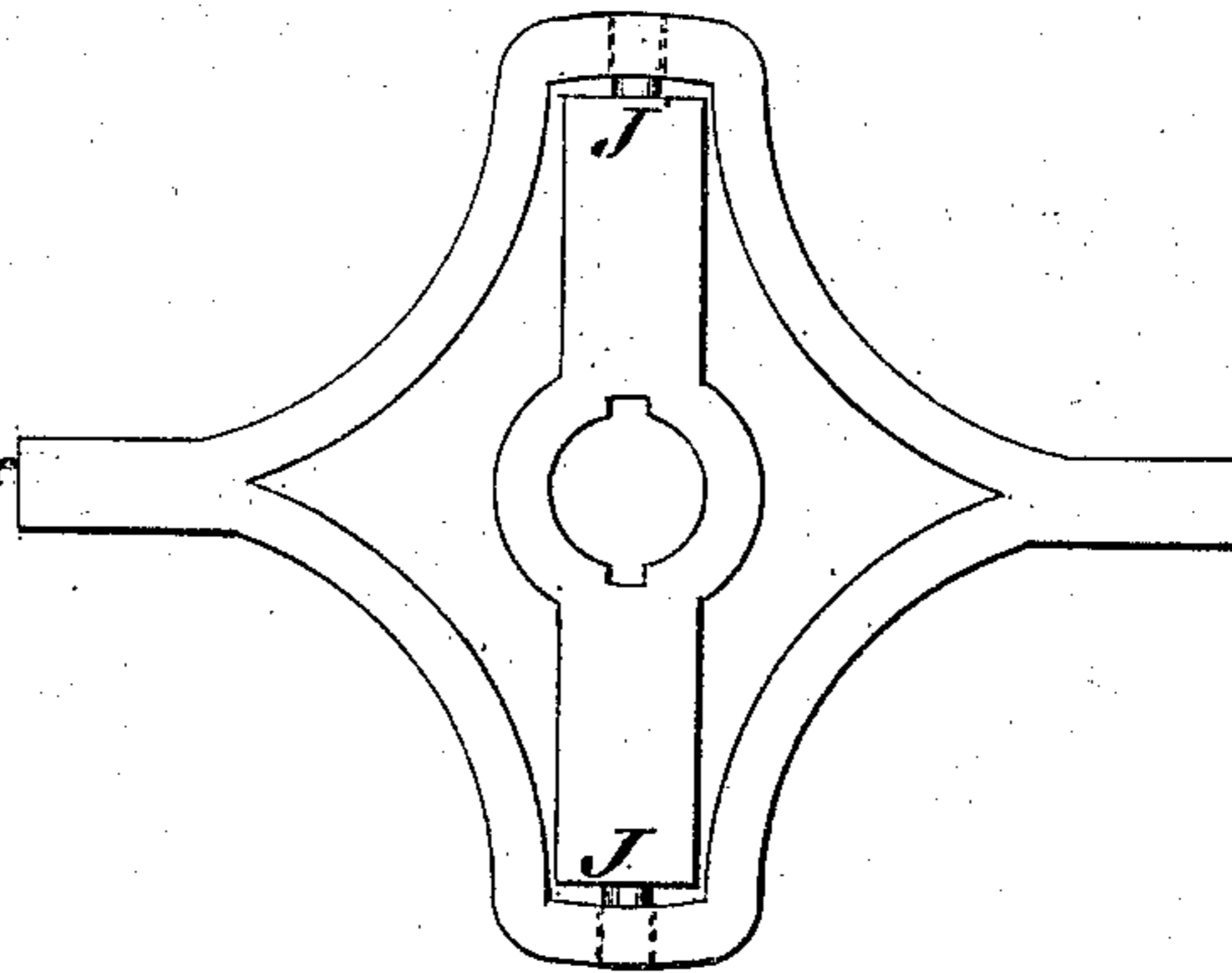
*Fig:1.*



*Fig:2.*



*Fig:3.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN MILLSTONE-DRIVERS.

Specification forming part of Letters Patent No. **111,277**, dated January 24, 1871.

*To all whom it may concern:*

Be it known that I, JOHN J. TOMLINSON, of Bozeman City, in the county of Gallatin and Territory of Montana, have invented a new and useful Improvement in Millstone-Drivers; 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, forming part of this specification.

This invention relates to a new and useful improvement in drivers for millstones, by means of which the running stone adjusts itself to the bed-stone and to the resistance when the latter (or bed-stone) is out of level, or when the spindle is out of "train" or varies from a line perpendicular with the face of the bed, as will be hereinafter more fully described; and the invention consists in the construction and arrangement hereinafter generally described, and specifically stated in the claims.

In the accompanying drawing, Figure 1 represents a vertical section of Fig. 2 on the line *x x*, showing the spindle and driver and the runner and bed-stone. Fig. 2 is a view of the running stone, with the driver in place. Fig. 3 is a view of a self-adjusting driver made with pivot-bearings.

Similar letters of reference indicate corresponding parts.

A is the bed-stone. B is the running stone. C is the spindle. D is the bail. E is the inner driver, which is keyed or fastened to the spindle in the usual manner. F is the outer driver, the two arms G G of which drive the runner. These arms rest in recesses in the stone, and are allowed lateral play, as seen in the drawing. The ends of the arms are provided with friction-rolls H H. By means of this lateral play the stone is adjusted in one direction, and the resistance equalized on the ends of the driver.

The adjustment in the other direction is pro-

vided for by the mode of uniting the inner to the outer driver. This is done by two links, I I, by means of which the inner driver, E, is allowed a longitudinal movement within the outer driver, F. This arrangement is plainly seen in Fig. 2.

The inner driver, E, may be provided with pivots, as seen in Fig. 3, at J J, which will allow the runner to slightly rock and adjust itself vertically.

With the runner balanced on the cock-head of the spindle and a rigid driver it is nearly impossible to bring an equal amount of resistance on the two ends of the driver. By the play provided for in my arrangement no difficulty is experienced.

K represents a cone or frustum of a cone of sheet metal, which fits into the eye of the stone and partially covers the driver, the object being to properly distribute the feed.

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

1. In combination with the running stone of a grinding-mill, a driver composed of the parts E and F, connected together and with the runner, substantially as shown and described, and for the purposes set forth.

2. Making provision for lateral play in a mill-driver, substantially as and for the purpose shown in Fig. 2, and herein described.

3. The arms G G of the driver F, provided with friction-rollers H H, and fitted loosely in recesses in the runner, as shown and described, to provide for lateral play, as set forth.

4. The inner driver, E, outer driver, F G, provided with rollers H, and the links I I, arranged with reference to the spindle and runner, as shown and described.

JOHN J. TOMLINSON.

Witnesses:

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