

(No Model.)

J. M. REPLOGLE.

BAIL AND DRIVER FOR MILLSTONES.

No. 271,270.

Patented Jan. 30, 1883.

Fig. 1.

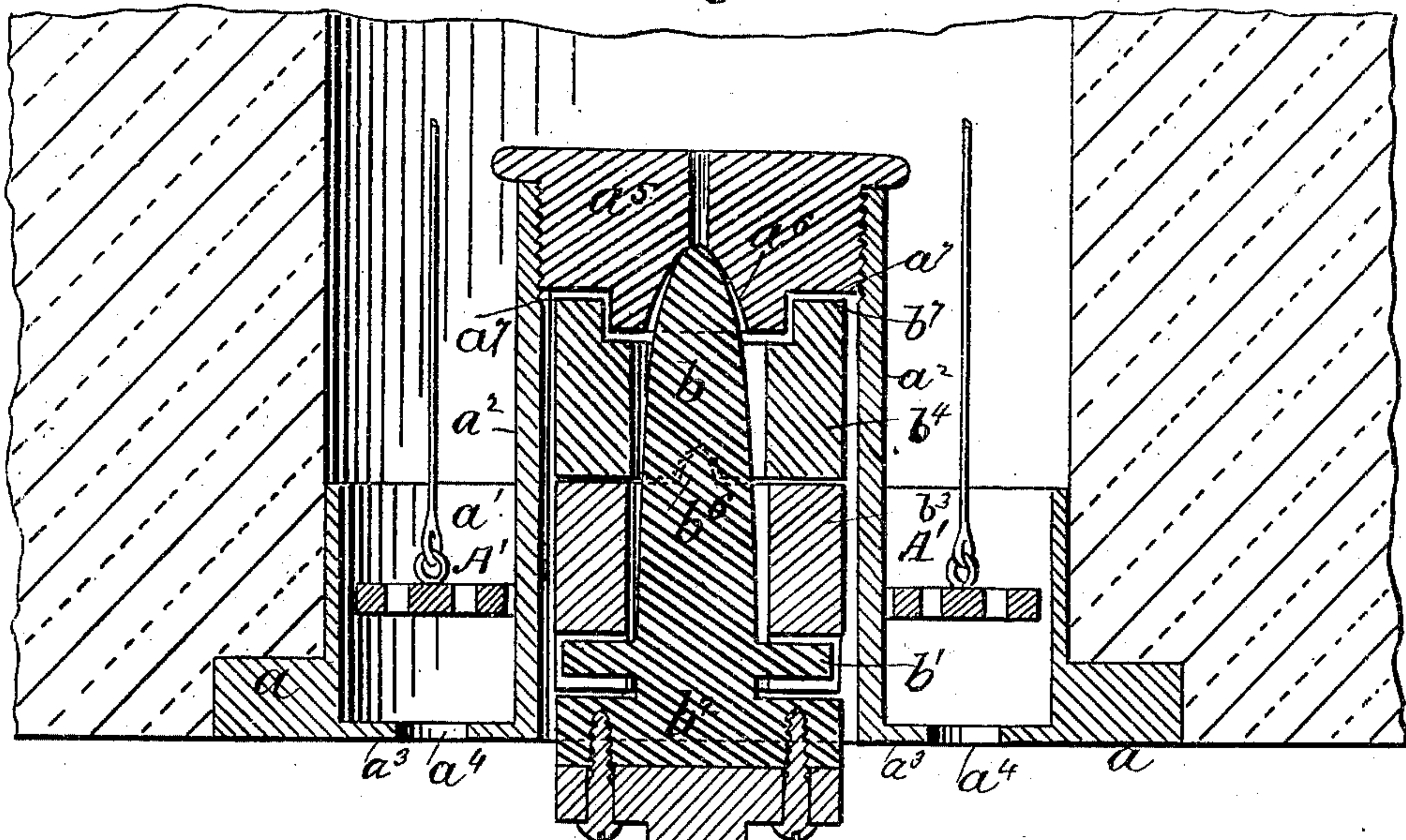


Fig. 2.

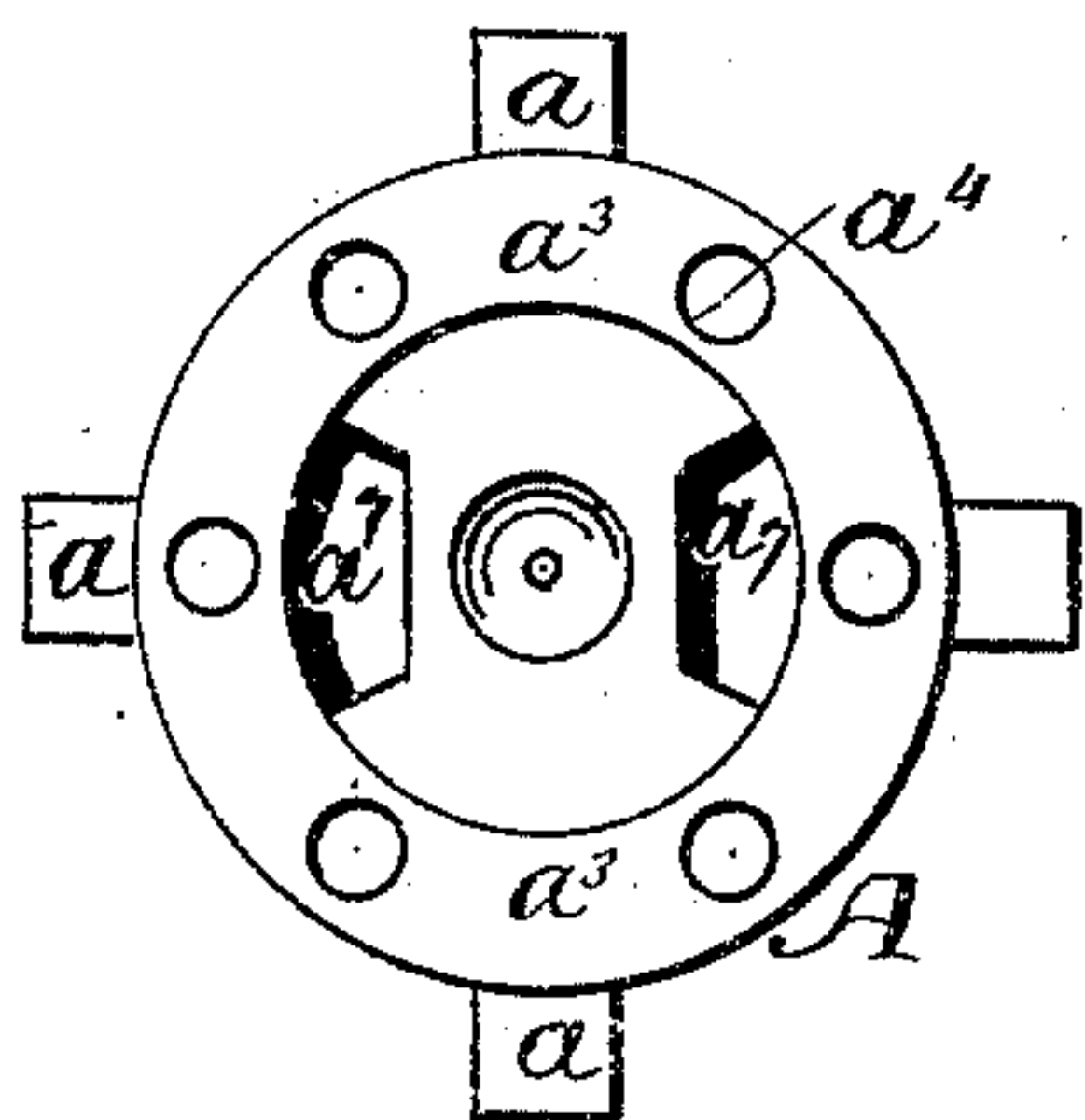


Fig. 4.

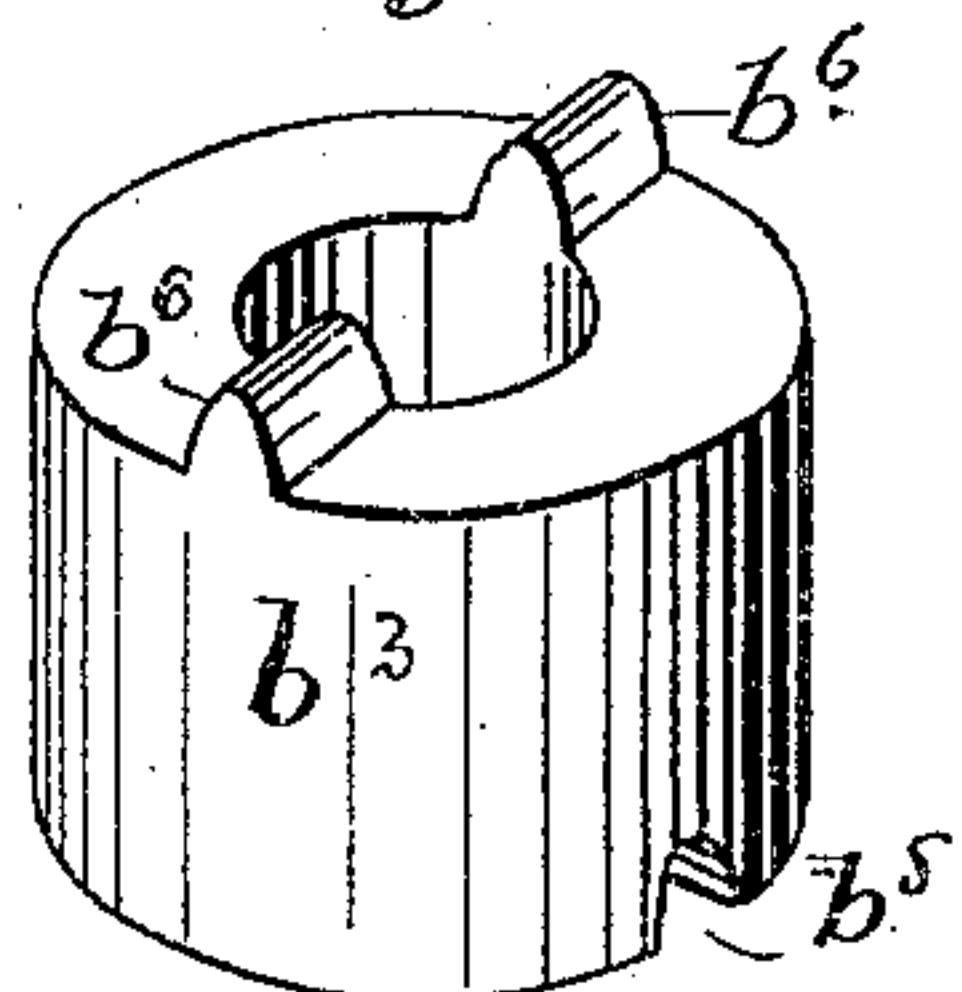


Fig. 3.

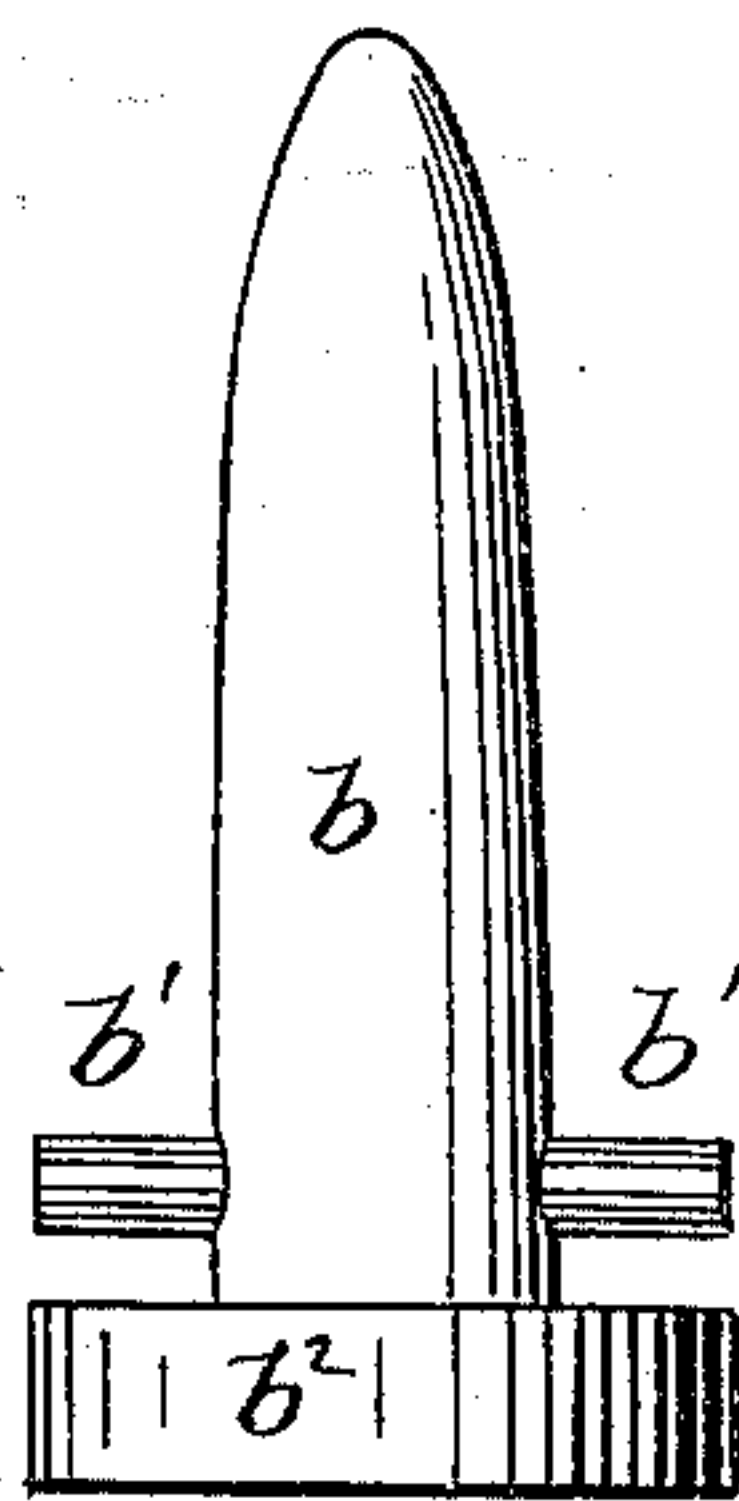
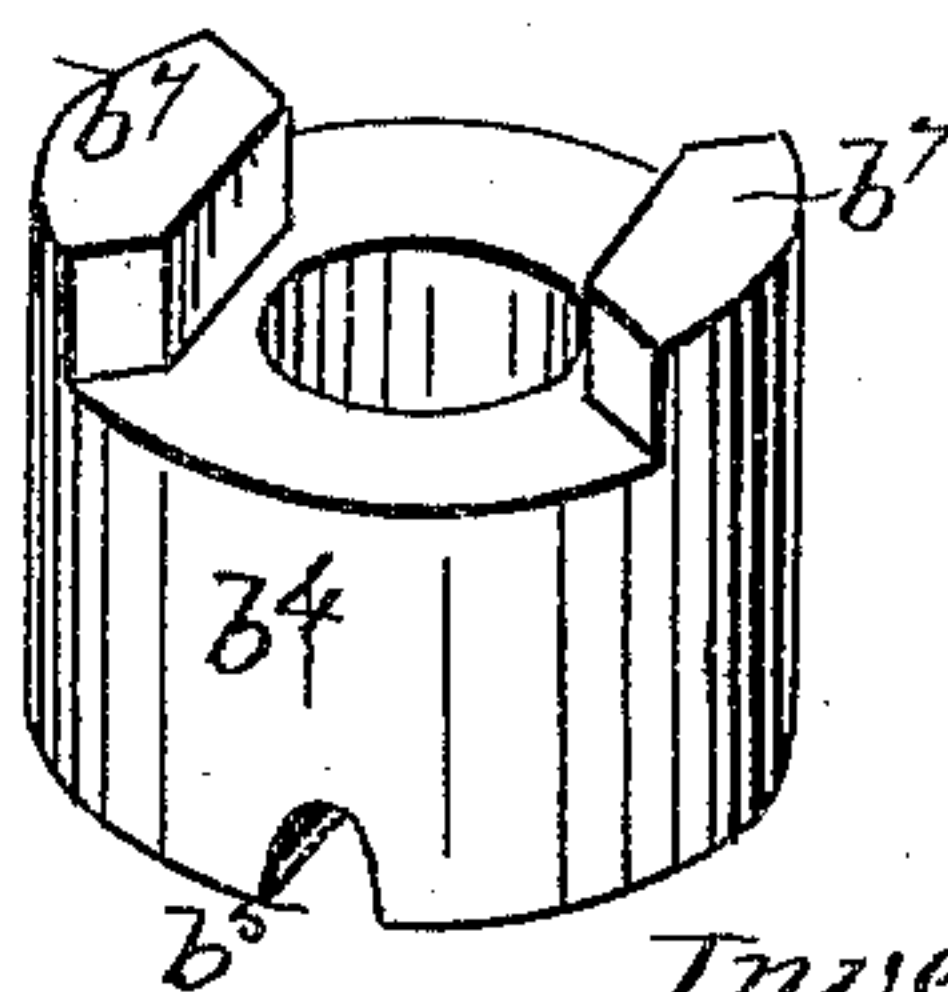


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JACOB M. REPLOGLE, OF FARRAGUT, IOWA.

BAIL AND DRIVER FOR MILLSTONES.

SPECIFICATION forming part of Letters Patent No. 271,270, dated January 30, 1883.

Application filed August 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB M. REPLOGLE, a citizen of the United States, residing at Farragut, in the county of Fremont and State of Iowa, have invented certain new and useful Improvements in Bails and Drivers for Millstones; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings; and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a certain improved bail and driver for millstones; and it consists in certain features herein described, and specifically set forth in the claims.

Figure 1 is a vertical section of a bail and driver constructed in accordance with my invention. Fig. 2 is a plan or bottom view of the bail; Fig. 3, an elevation of the spindle, and Figs. 4 and 5 are perspectives of the lower and upper collars, respectively.

The same letters refer to the same or corresponding parts in all the figures.

This invention is intended for use in that arrangement of stones in which the upper one of a pair rotates; and the object of the invention is to provide means for supporting and driving the upper stone, so that it shall run in tram without other adjustment than that arising from the weight and momentum of the stone.

The hanger A is secured in the eye of the stone and supports the same by means of the projecting arms a —of which in this instance there are four—cast integral with an outer tube, a' , an inner tube, a^2 , and bottom a^3 , having a series of perforations, a^4 , therein. The inner tube is interiorly screw-threaded at its upper end to adapt it to receive and retain a screw-threaded plug, a^5 , the under surface of which is provided with a central conical depression or spindle-seat, a^6 , and recesses a^7 , arranged diametrically opposite each other, as clearly shown in Fig. 2. By constructing the bail in this manner all the working parts of the driver are protected from dust, finely-ground grain, middlings, and other clogging substances, and the parts thereof are few in num-

ber and of such form that they can be readily cast. While in operation the plug or top or (as it is known in the art) the "sancer," receives the incoming grain and delivers it through the perforations in the bottom of the bail, and, as illustrated at A', a disk or dead-eye, either perforated or not, may be suspended within the annular space formed by the tubes of the hanger or bail to prevent clogging in the feed.

The driver consists of a spindle, b , having oppositely-disposed trunnions b' and a base, b^2 , or other suitable means for connection to an upright driving-shaft, C, of any desired usual construction. The point of the spindle is tapered to fit loosely the conical seat a^6 . Two collars, b^3 b^4 , each provided at its lower end with two oppositely-located recesses, b^5 , and of sufficient bore to fit loosely the spindle b , are placed thereon, the former being supported thereby and on the trunnions b' , which rest in the recesses; and the latter collar, b^4 , is placed upon the former, which is provided with ribs b^6 on the upper end and at points intermediate those at which the recesses of said collar are located, said ribs fitting the recesses loosely and being of sufficient height to separate the collars one from the other. The upper collar has at its top two projections, b^7 , which are adapted to fit the recesses a^7 in the plug a^5 , and are of sufficient height to separate said collar from the plug, as shown. It will thus be seen that the running-stone is supported vertically upon a rigid spindle and shaft, which by the usual means may be operated, and by like means the stones may be adjusted with relation to each other, while the plane of rotation of the runner may vary, in that the support of the stone, aside from the point of the spindle, is obtained by the pivoted or articulated connections between the spindle and bail, formed on the same and on the interposed collars in such relative position that any usual inclination of the stone when in motion is provided for.

It will also be seen that more than two collars may be provided, and that the ribs and recesses on contiguous collars may be arranged at less than relatively one-fourth the circumference of the collars apart in the series, so that articulation of the parts upon each other may take place oftener during each revolution

of the stone; and, furthermore, it is apparent that the driver herein shown may be used with other bails, and that the trunnions may be supported by ribs on the base of the spindle.

5 Having described my invention and its operation, what I claim as new, and desire to secure by Letters Patent, is—

10 1. A hanger or bail for millstones, consisting of the integral inner and outer tubes, the perforated connecting-bottom, the lugs, and the screw-threaded plug, substantially as shown and described.

15 2. A bail comprising a plug formed with a spindle-seat, a central tube surrounding said seat, and articulated collars, whereby said bail is adapted to protect the spindle and collars from dirt and dust, and a perforated flange or bottom connecting said tube and the lugs, substantially as shown and described.

3. The combination of the spindle *b*, provided with the trunnions *b'*, the collar *b³*, provided with the recesses *b⁵* and ribs *b⁶*, and the collar *b⁴*, provided with the recess *b⁵* and projections *b⁷*, with a bail provided with a spindle-seat, *a⁶*, and recesses *a⁷*, substantially as shown 25 and described.

4. The combination of the spindle *b*, the articulated collars *b³* *b⁴*, and a bail provided with a tube encircling the spindle and collars, substantially as shown and described. 30

In testimony whereof I affix my signature in presence of two witnesses.

J. M. REPLOGLE.

Witnesses:

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