

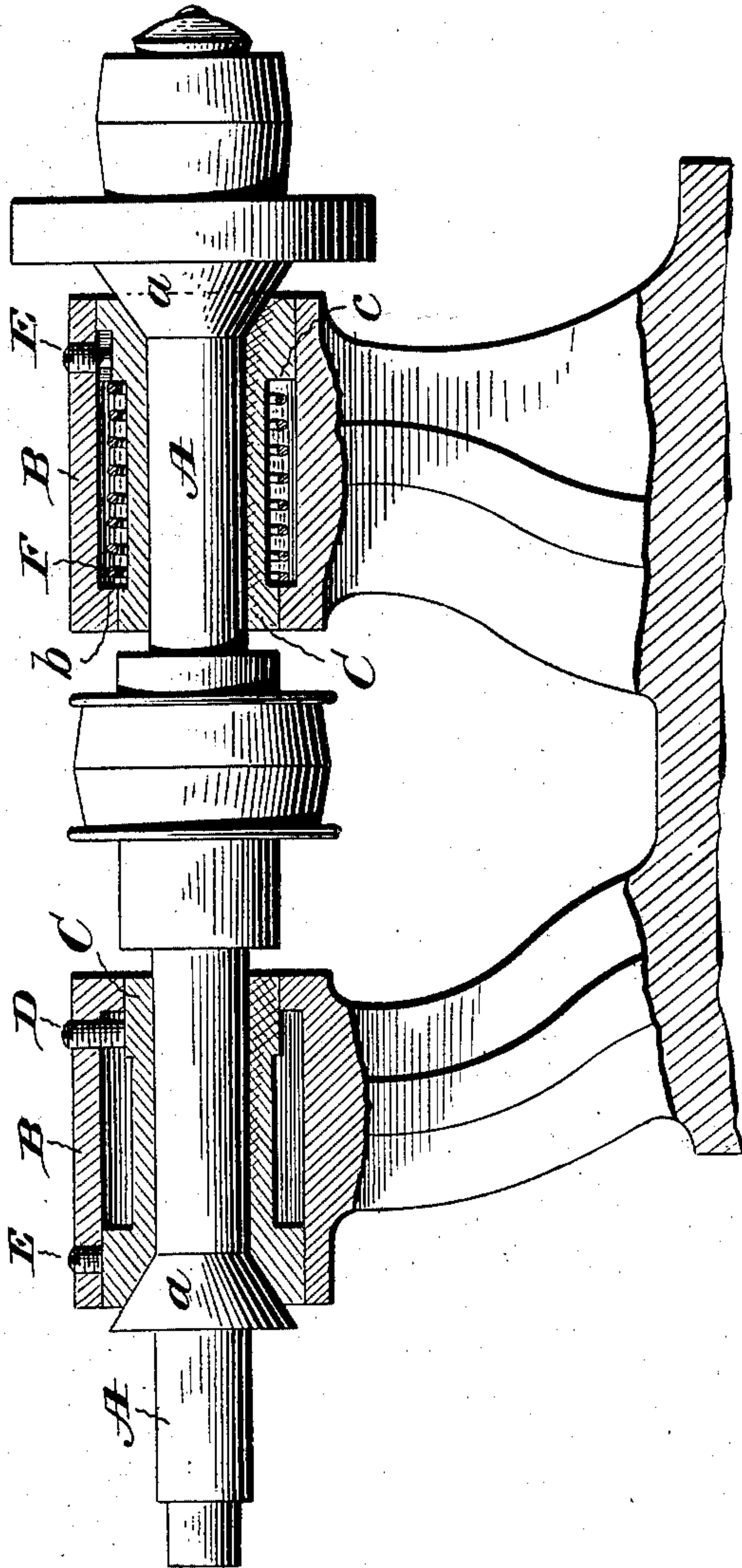
No. 750,362.

PATENTED JAN. 26, 1904.

J. J. HARRINGTON.  
SHAFT BEARING.

APPLICATION FILED JUNE 3, 1903.

NO MODEL.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN J. HARRINGTON, OF BROCKTON, MASSACHUSETTS.

## SHAFT-BEARING.

SPECIFICATION forming part of Letters Patent No. 750,362, dated January 26, 1904.

Application filed June 3, 1903. Serial No. 159,941. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. HARRINGTON, of Brockton, in the county of Plymouth, and in the State of Massachusetts, have invented a certain new and useful Improvement in Shaft-Bearings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, in which the figure is a longitudinal section, with parts in elevation, of a shaft and its bearing embodying my invention,

The object of my invention is to provide bearings for shafts or spindles of such construction as to have prolonged life and to insure a smooth steady motion to the shaft; and to this end my invention consists in the shaft-bearing having the features of construction substantially as hereinafter specified and claimed.

In the embodiment of my invention illustrated in the drawing there is shown the shaft A of a machine for trimming shoe edges, the trimming-tool being applied to one of the ends of the shaft, and two boxes B are shown, through which the shaft passes. In each of the boxes and encircling the shaft is a sleeve C, which forms the shaft-bearing, one of which sleeves is fixed or held against longitudinal movement by a screw D, while the other sleeve is free to move longitudinally. Both, however, are restrained from rotary motion, each for this purpose having a screw E. Encircling the sleeve that is free to move longitudinally is a coil-spring F, which acts on the sleeve to press it outward, one end of said spring engaging a flange or shoulder *b* on the box B, in which said sleeve is placed, and the other end engaging a collar or annular shoulder *c* on the sleeve. On the shaft adjacent the outer end of each sleeve C is an enlargement or collar *a*, preferably conical in form, which engages a correspondingly-formed cavity in the end of the sleeve. One sleeve being stationary and the other slidable longitudinally, it will be seen that the spring F, pressing its sleeve outward in contact with the adjacent shaft-collar, will draw the shaft, so that its other collar will bear against its sleeve, the result being that at all times the shaft has at both points a firm solid bearing, so that it

will run smooth and steady. Wear is automatically taken up, and as a result of smooth running of the shaft the work to be done is better and more easily accomplished and the life of the bearing materially prolonged.

It is to be understood that I do not limit the employment of my invention to any particular machine.

Having thus described my invention, what I claim is—

1. The combination with a shaft provided with two enlargements, a bearing part for engaging one enlargement, a second bearing part for engaging the other enlargement, and automatic means to simultaneously maintain engagement of both enlargements and their respective bearing parts, whereby the shaft is held steadily in position.

2. The combination of a shaft provided with two enlargements, a movable part encircling the shaft for engaging one enlargement, a second part for engaging the other enlargement, and a spring that acts on the movable part and causes engagement between both parts and the respective enlargements, whereby the shaft is held steadily in position.

3. The combination of a shaft, two bearings therefor, one of which has a longitudinally-movable member, enlargements on the shaft engaging the respective bearings, and means acting only on said movable bearing member to automatically cause engagement of the shaft enlargements with the respective bearings.

4. The combination of a shaft, a bearing therefor having stationary and longitudinally-movable members, the shaft having enlargements, and means to automatically press said movable member against one of the shaft enlargements, and the other shaft enlargement against the stationary member.

5. The combination of a shaft having two conical enlargements, a movable part for engaging one of said enlargements, a stationary part for engaging the other enlargement, and automatic means acting upon the movable part that causes engagement of the enlargements with their respective parts.

6. The combination of a shaft, a bearing-box, a sleeve in the box, the shaft having enlargements, one of which is engaged by said

sleeve, a spring within the box, and pressing the sleeve against one of the shaft enlargements, and a stationary bearing part for engagement with the other enlargement, such engagement also being produced by said spring.

5 7. The combination of a shaft, bearing-boxes, a sleeve in each box, one stationary and the other longitudinally movable, the shaft having conical enlargements engaging the re-  
10 spective sleeves at opposite ends, and a spring

within the box containing the movable sleeve and acting to cause engagement of the shaft enlargements and the sleeves.

In testimony that I claim the foregoing I have hereunto set my hand.

JOHN J. HARRINGTON.

Witnesses:

JOSEPH MOTTAN,

JOHN McCARTY.