

(No Model.)

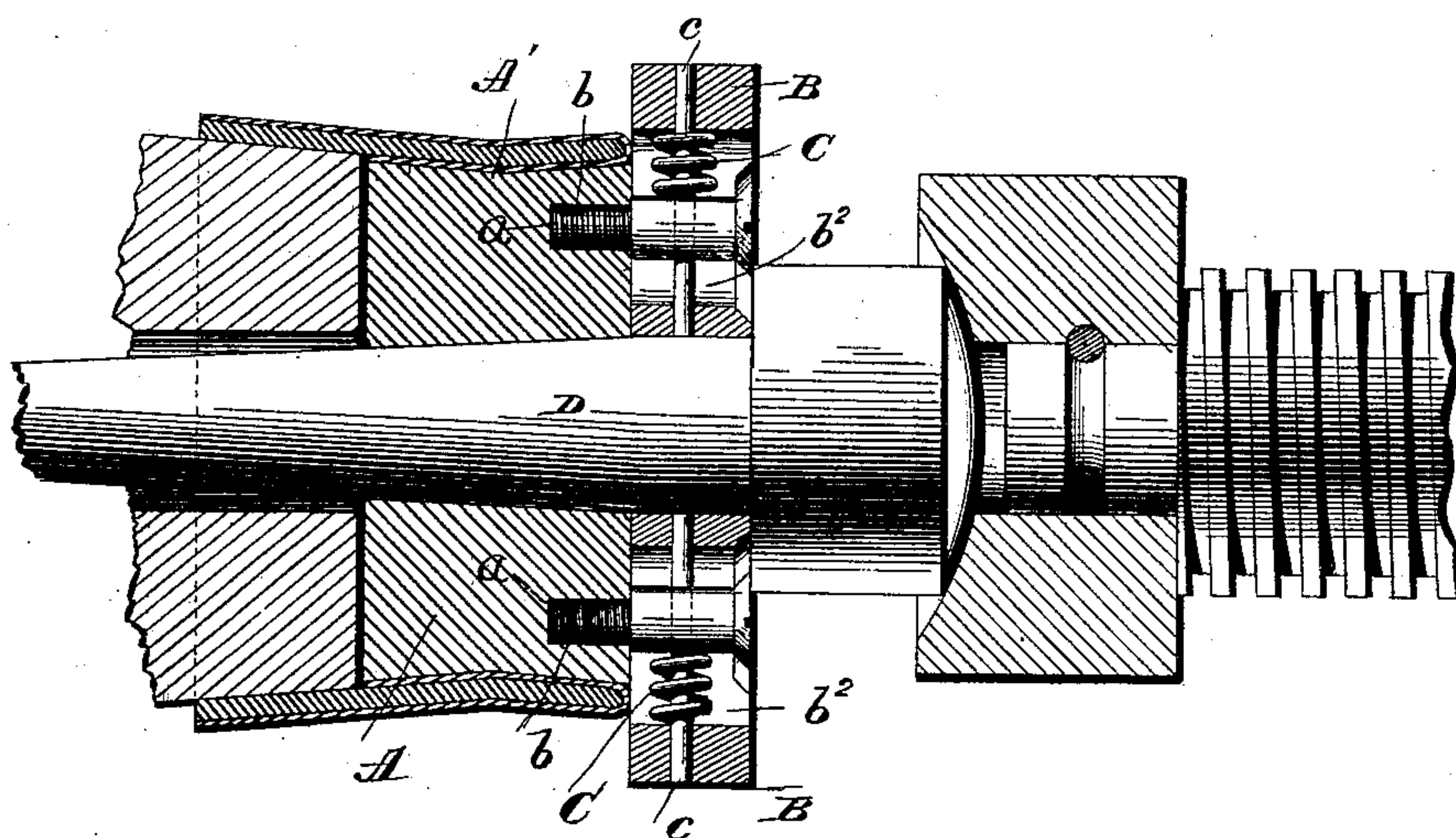
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MACHINE FOR APPLYING RINGS TO HUB BANDS.

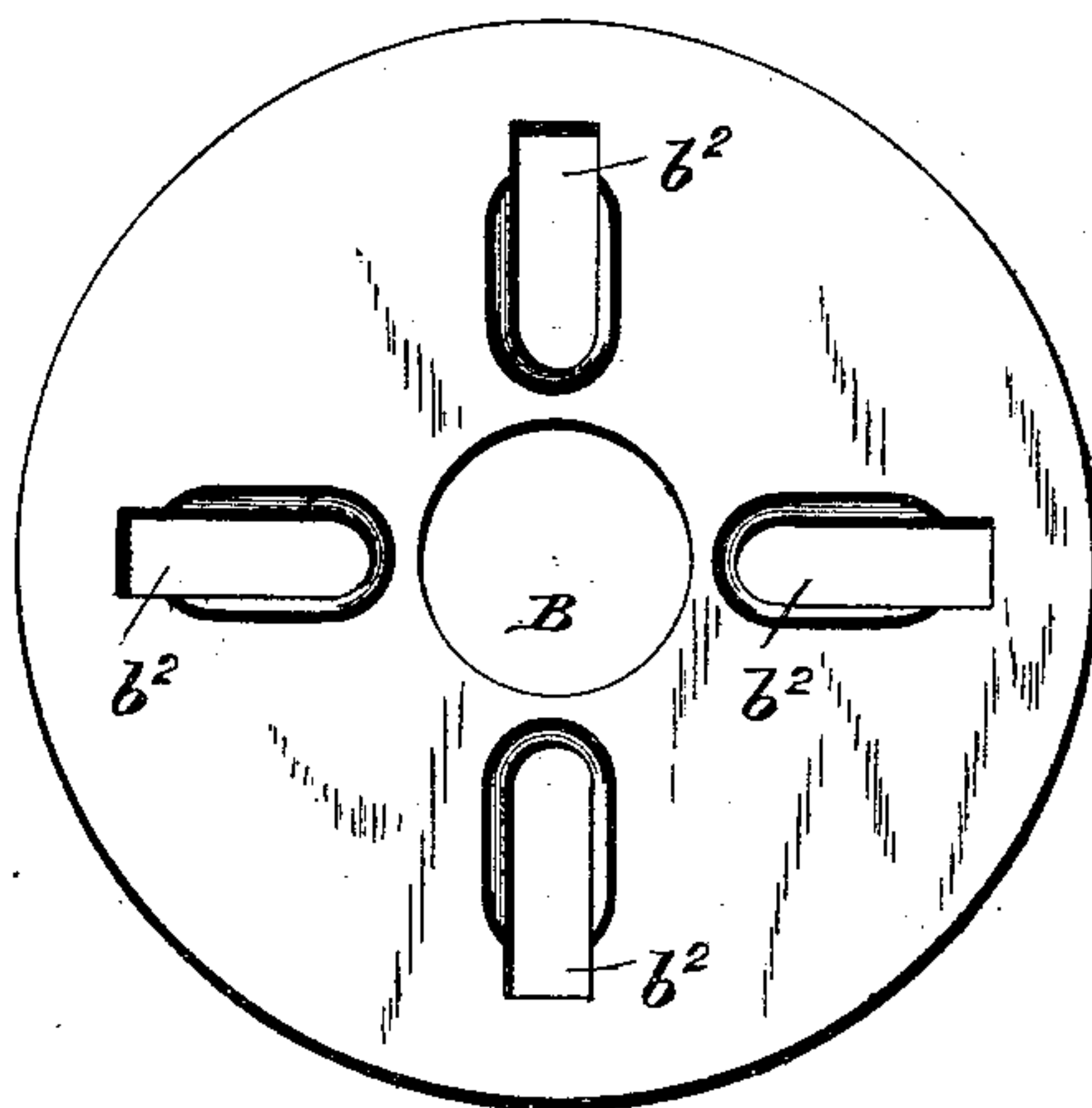
No. 434,568.

Patented Aug. 19, 1890.

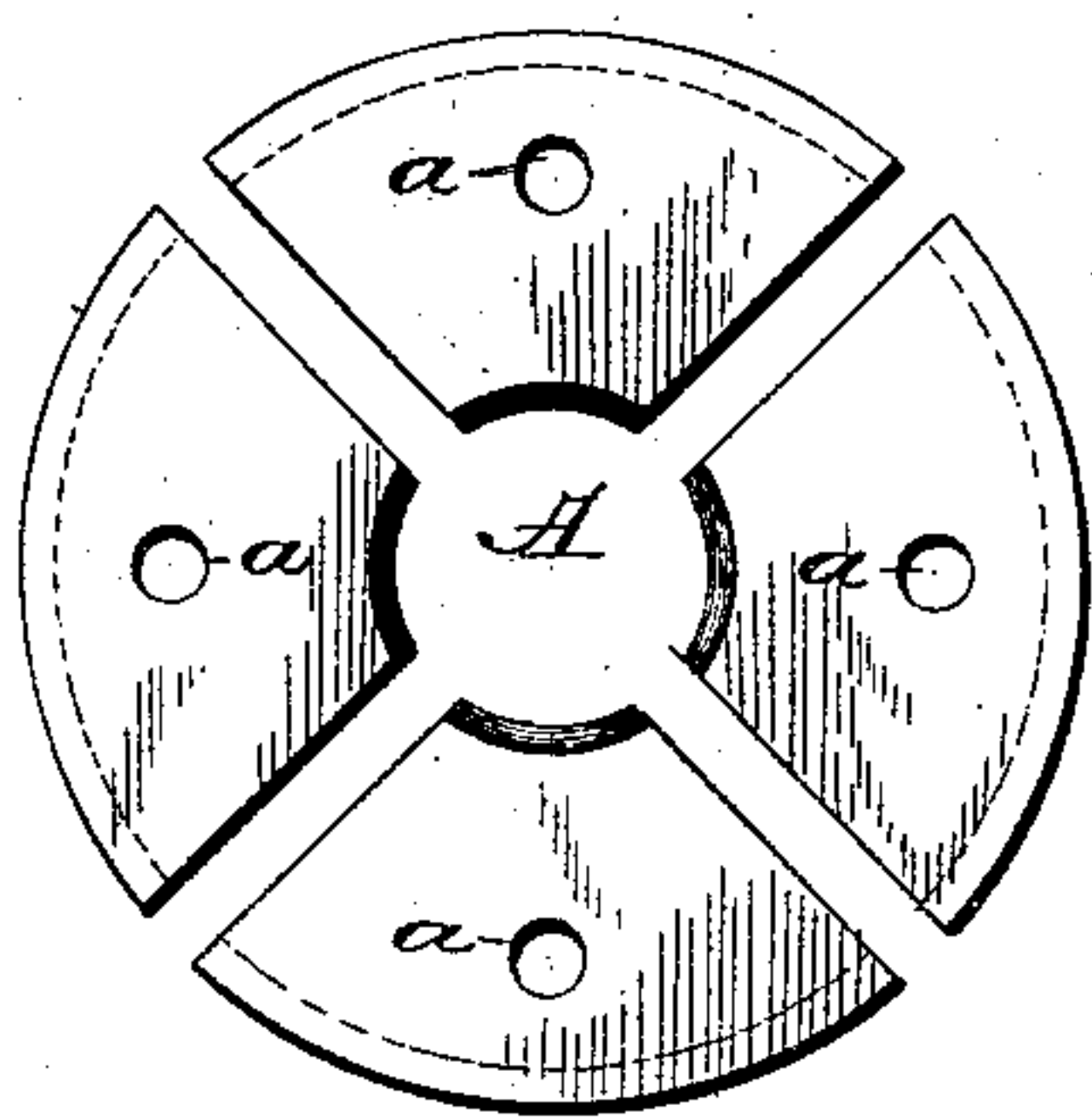
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



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Witnesses

L. S. Elliott.  
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by

Attorney



# UNITED STATES PATENT OFFICE.

THOMAS J. REID, OF CINCINNATI, OHIO.

## MACHINE FOR APPLYING RINGS TO HUB-BANDS.

SPECIFICATION forming part of Letters Patent No. 434,568, dated August 19, 1890.

Application filed January 9, 1890. Serial No. 336,363. (No model.)

### *To all whom it may concern:*

Be it known that I, THOMAS J. REID, a citizen of the United States of America, residing at Cincinnati, in the county of Hamilton and State of Ohio, at present residing at Gananoque, Ontario, Canada, have invented certain new and useful Improvements in Machines for Applying Rings to Hub-Bands; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in machines for applying ornamental rings to hub-bands, the object thereof being to provide an ornamental band which forms the exterior covering and lining for a hub-band to the iron band, so that the ornamental lining and covering can be securely held in place; and it consists in the combination of an expanding-block, means for supporting the sections thereof, and a pin for expanding the parts, as will be hereinafter fully set forth and particularly claimed.

In the accompanying drawings, Figure 1 is a view partly in section of a hub-expanding device constructed in accordance with my invention. Fig. 2 is a plan view of the expanding-block. Fig. 3 is a plan view of the plate for carrying the expander.

A refers to the expanding-block, which is preferably made up of four sections, each section being provided with a screw-threaded opening *a*, with which the bolts *b* of the carrying-plate B engage. The former A is inclined on its outer face, as shown at A', and when contracted is adapted to be placed within the hub-band and lining. The plate B is made up of a single piece and has radial openings *b*<sup>2</sup>, which are countersunk for the reception of the heads of the bolts *b*. These bolts are provided with openings, through which pass bars or rods *c*, which not only serve to lock the bolts against rotation, but also serve to hold in place springs C, which bear upon the bolts and hold the sections of the former A contracted or together. The central opening

in the plate B is of considerably larger diameter than the central opening formed by the segments when contracted, and in order to expand the "former" when inserted in a hub-band, I use a tapered pin D, which may be driven in place by means of a mallet or by a follower operated by a screw or by hydraulic power. When the follower is used, it is mounted loosely upon a screw, as illustrated in Fig. 1.

To apply a lining to a hub-band and expand the outer portion of the lining, hub-band, and exterior covering-plate, the hub is placed in a suitable die or frame and a former A placed within the interior of said hub-band, after which the pin is driven with sufficient force to expand the sections of the former A, thereby expanding the inner ends of the lining and expanding the outer portion of the band, thus securing the parts firmly together.

I claim—

1. The combination, with the segmental former A, made up of segments having their outer faces corresponding in configuration to the interior, of a hub-band, a carrying-plate B, having radial slots, bolts connecting the segments to the plate and movable radially in said slots, and springs seated in said carrying-plate for normally forcing inward the bolts to contract the sections carried thereby, and a wedge-shaped pin for expanding said former-section, substantially as set forth.

2. In combination with a former A, made up of four or more segments, a plate B, having slots through which pass bolts which engage with the segments of the former, rods passing through said bolts, springs on said rods to press against said bolts, said plate B having a central opening of greater diameter than the central opening in the former when the segments are in contact, and a tapered pin for expanding the segments, said segments having inclined faces, substantially as set forth.

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

THOMAS J. REID.

Witnesses:

MATHEW MATHIESEN,  
W. B. CARROLL.