

J. E. & E. ATWOOD.

Device for Securing and Adjusting Spinning-Rings.

No. 168,956.

Patented Oct. 19, 1875.

Fig. 1.

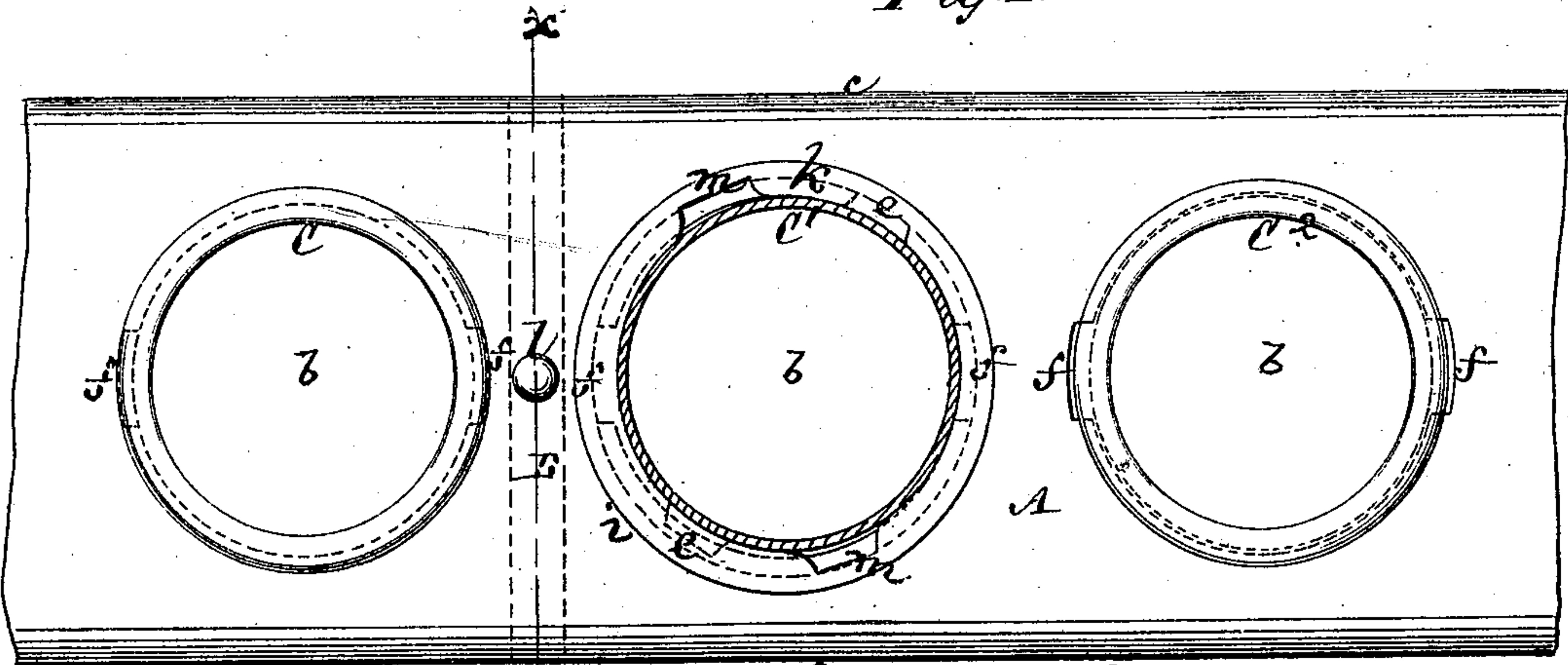


Fig. 2.

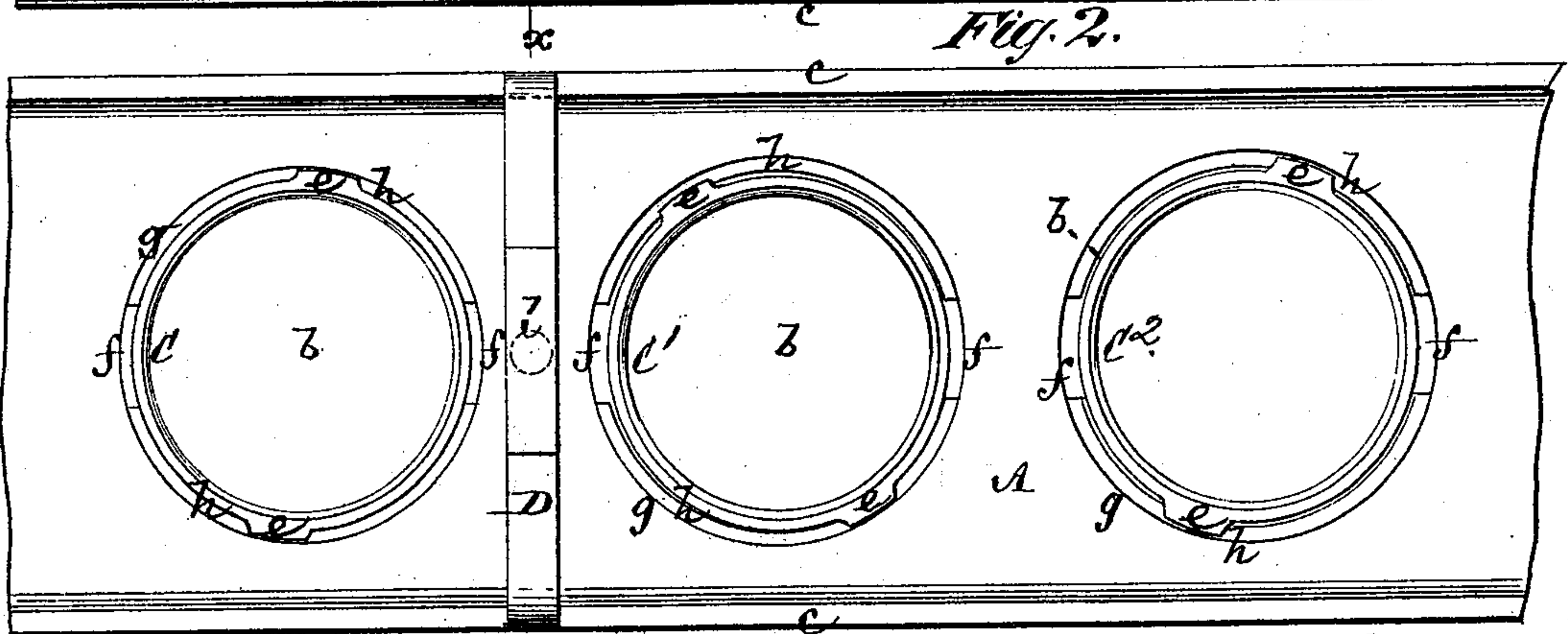


Fig. 6.

Fig. 5.

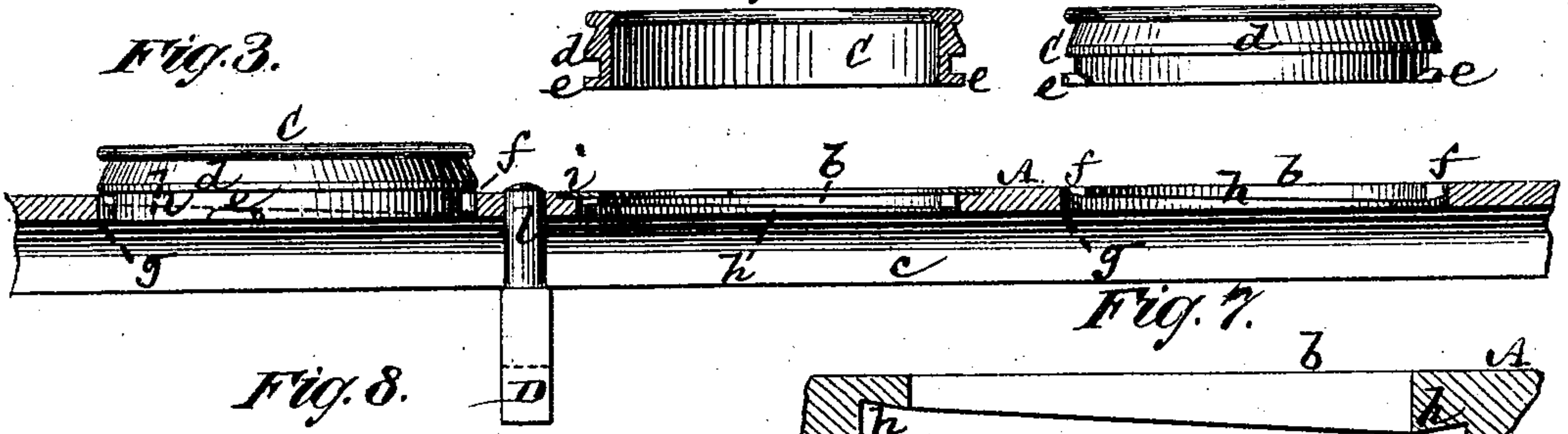


Fig. 8.

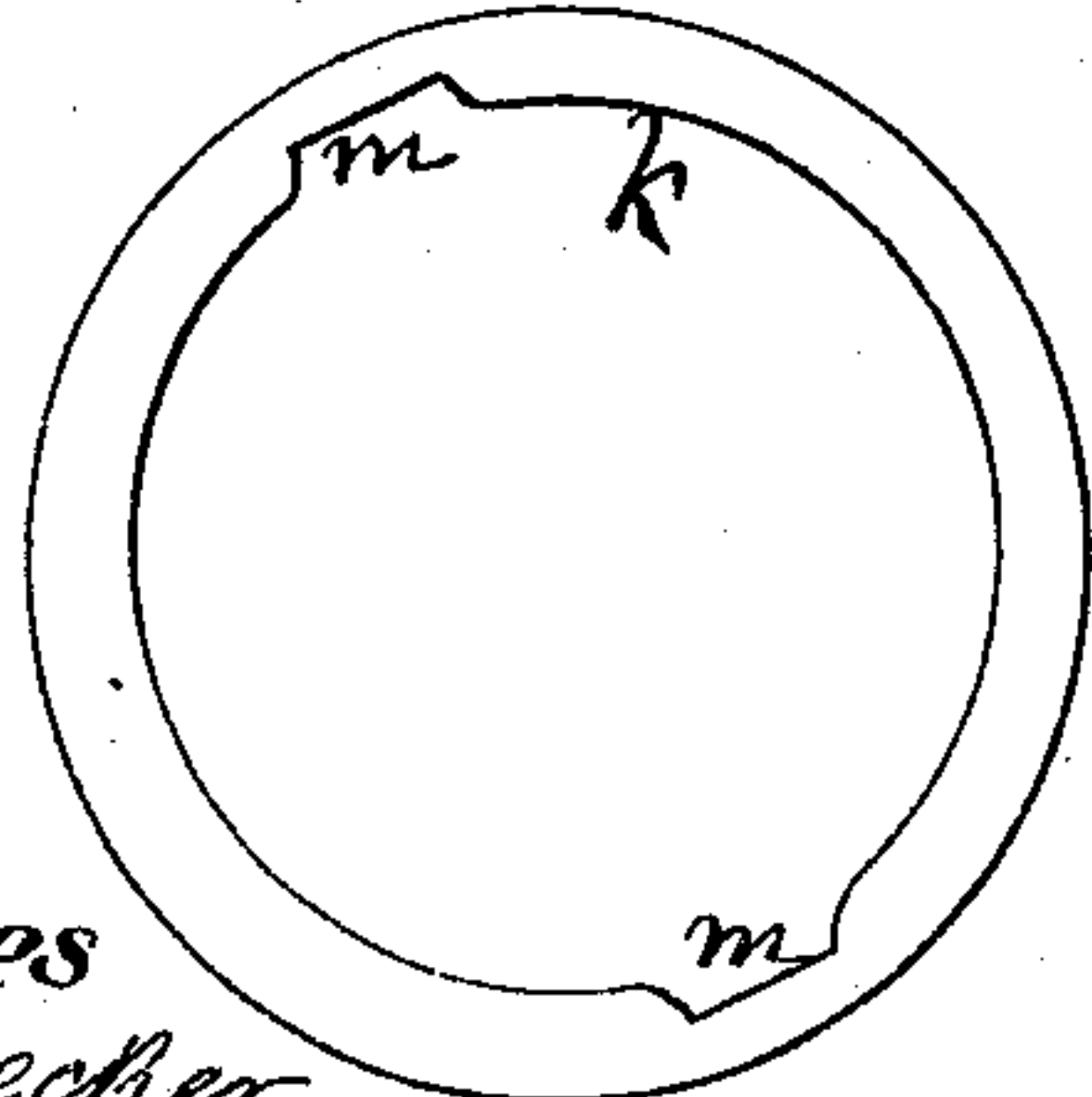
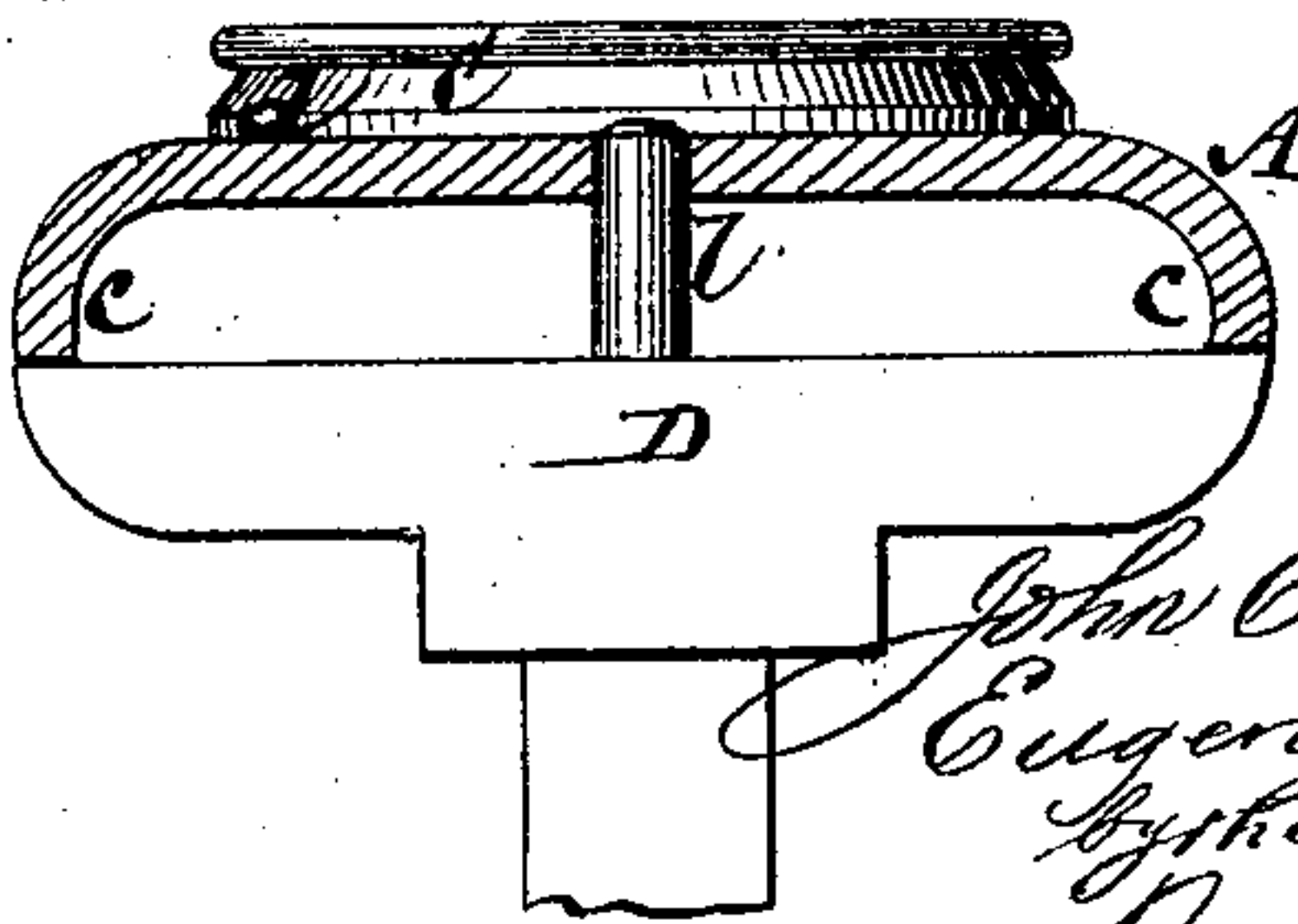


Fig. 4.



Witnesses  
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# UNITED STATES PATENT OFFICE

JOHN E. ATWOOD, OF MANSFIELD, AND EUGENE ATWOOD, OF  
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## IMPROVEMENT IN DEVICES FOR SECURING AND ADJUSTING SPINNING-RINGS.

Specification forming part of Letters Patent No. **168,956**, dated October 19, 1875; application filed  
January 12, 1875.

*To all whom it may concern:*

Be it known that we, JOHN E. ATWOOD, of Mansfield, in the county of Tolland and State of Connecticut, and EUGENE ATWOOD, of Willimantic, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in the Rings and Ring-Rails of Spinning-Frames; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a top view of a ring-rail with rings therein, illustrating our invention, the one of said rings being shown in horizontal section. Fig. 2 is an under view of the same. Fig. 3 is a longitudinal vertical section thereof; Fig. 4, a transverse section thereof on the line *x x*; Fig. 5, a side or edge view of one of the rings detached; Fig. 6, a vertical section of such ring; Fig. 7, a vertical section of one of the ring-holes with its surrounding wall; and Fig. 8, a face view of an eccentric washer used in connection with the rings for centering them relatively with the spindles of the spinning-frame.

This invention relates to improvements in spinning-rings and ring-rails; and our invention consists in a novel construction and combination of parts, whereby the rings may be centered relatively to the spindles of the spinning-frame, all of which will be fully herein-after described, and pointed out in the claim.

A is a ring-rail of a spinning-frame, perforated, as at *b*, for reception of the rings. This ring-rail we propose to make of wrought-iron, and to form it with flanges or ribs *c*, produced by bending, swaging, or rolling. This makes a light and strong ring-rail. C C<sup>1</sup> C<sup>2</sup> represent spinning-rings, which partly enter within the holes *b* of the rail A, but are formed with shoulders *d*, or their equivalents, which bear on top of the rail, and are further formed or provided with one or more ears or segmental projections, *e*, on the lower portion of their outer peripheries, to lock and hold the rings to their places in the rail. To provide for the passage of these ears *e* through the ring plate or rail A the holes *b* in the latter have a corresponding number of side openings or enlargements, *f*; and said holes *b* are enlarged below, or, in other words, the under surface of the rail formed with countersinks *g*, for the

ears *e* to bear within and lock against, for which purpose the under surface of the rail, or upper surfaces of the countersinks *g* forming part thereof, are made with one or more inclined surfaces, *h*, so that, on suitably turning the rings, they are tightened to their places.

The ears or segmental projections *e* are chamfered off or rounded on the upper surfaces of their extremities to facilitate their action in relation with the inclines *h*.

In order to adjust the rings in a lateral or eccentric position with respect to the openings in the ring-rail to set the same in concentric relation with the spindles, we provide each ring with an eccentric washer, *k*, having openings or notches *m* in its inner periphery to pass over the ears *e*, and fitted over the neck of the ring from below, and entering a recess, *i*, in the upper surface of the rail, which recess is concentric with the hole in the rail, while the interior of said washer is eccentric thereto, so that, on turning the eccentric washer *k*, the ring is set as required to bring it concentric with the spindle passing through said ring.

To support the ring-rail and keep it in position by means of the usual sliding rods said rods are provided with T-shaped heads D, which bear against the flanges or ribs *c*, and have pivots *l*, that enter the upper portion of the ring-rail, and admit of the latter's self-adjustment in case of any twisting of the sliding rods which carry the heads.

We are aware that spinning-rings have been connected with the ring-rails by means of an incline on the periphery of the rings adapted to engage with a head or projection on the upper side of the rail; but such offer serious objections, due to the fact that such heads, projecting above the rails, catch and retain dirt and waste, and seriously interfere with wiping up the same.

We claim—

The combination, with the rings constructed with the ears *e*, and the ring-rail having the openings *f*, the concentric recesses or seats *i* and the inclines *h* of the eccentric washers *k*, having openings or notches *m*, substantially as and for the purpose described.

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