

(No Model.)

J. A. HOWELL.
CURTAIN OR SHADE ROLL.

No. 503,601.

Patented Aug. 22, 1893.

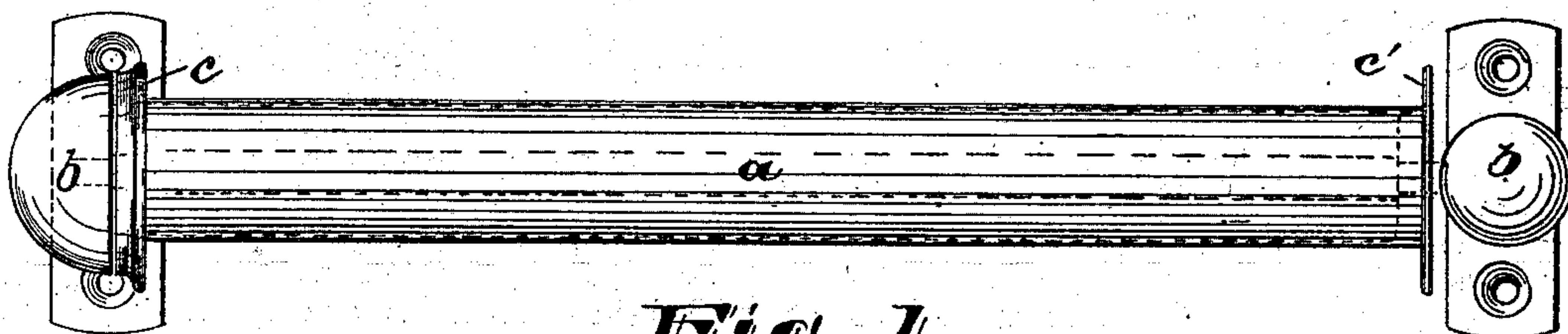


Fig. 1.

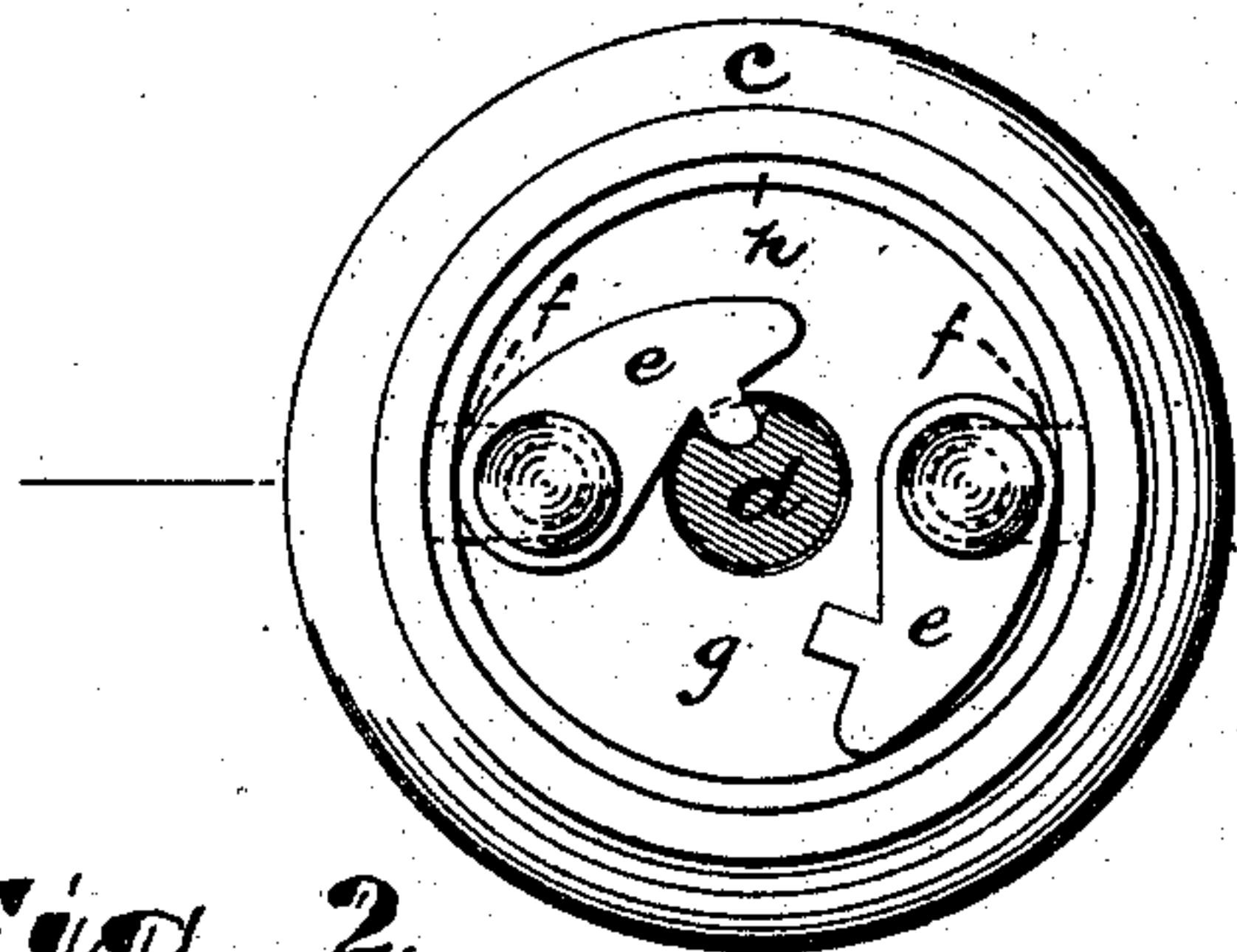


Fig. 2.

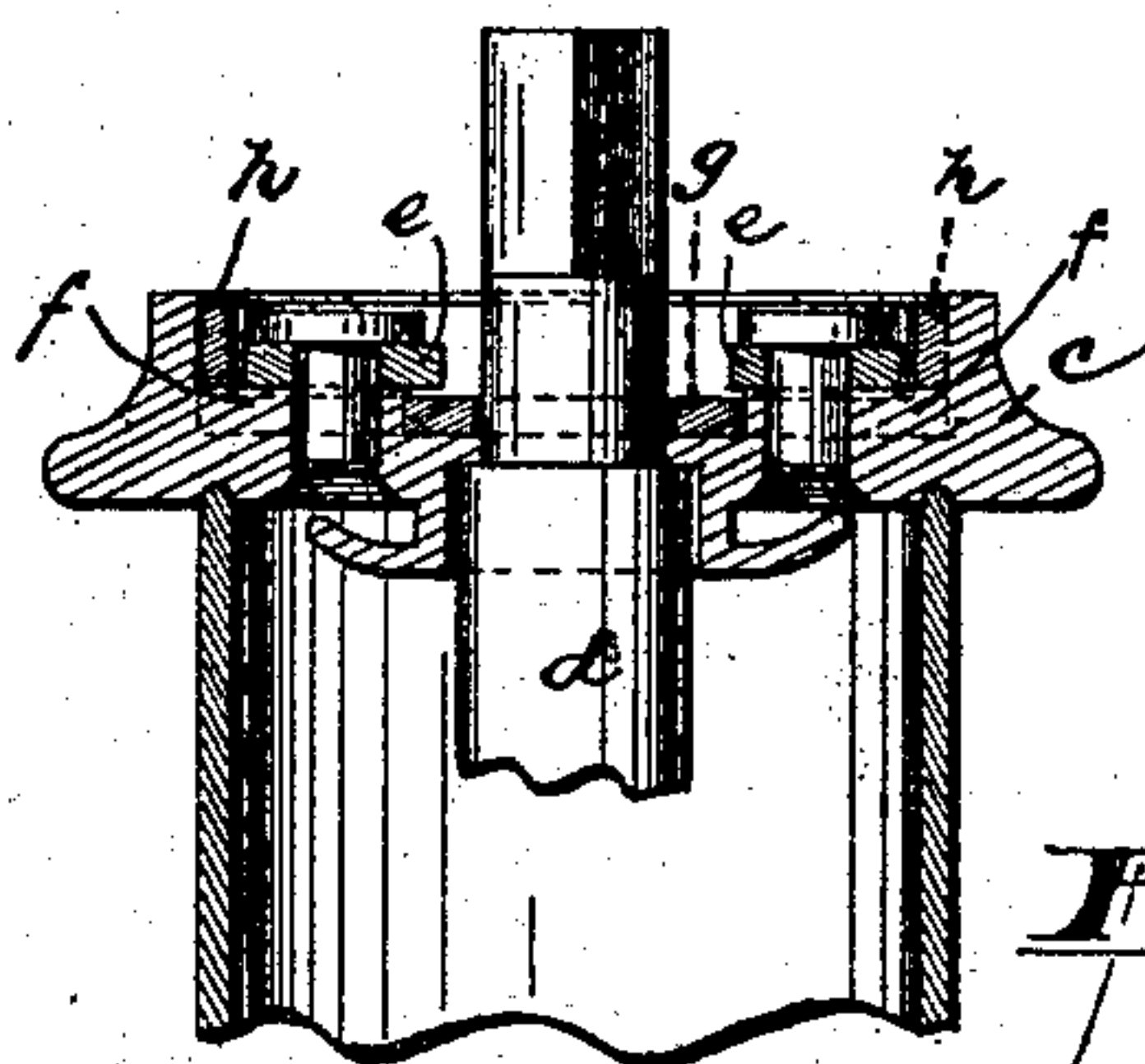


Fig. 3.

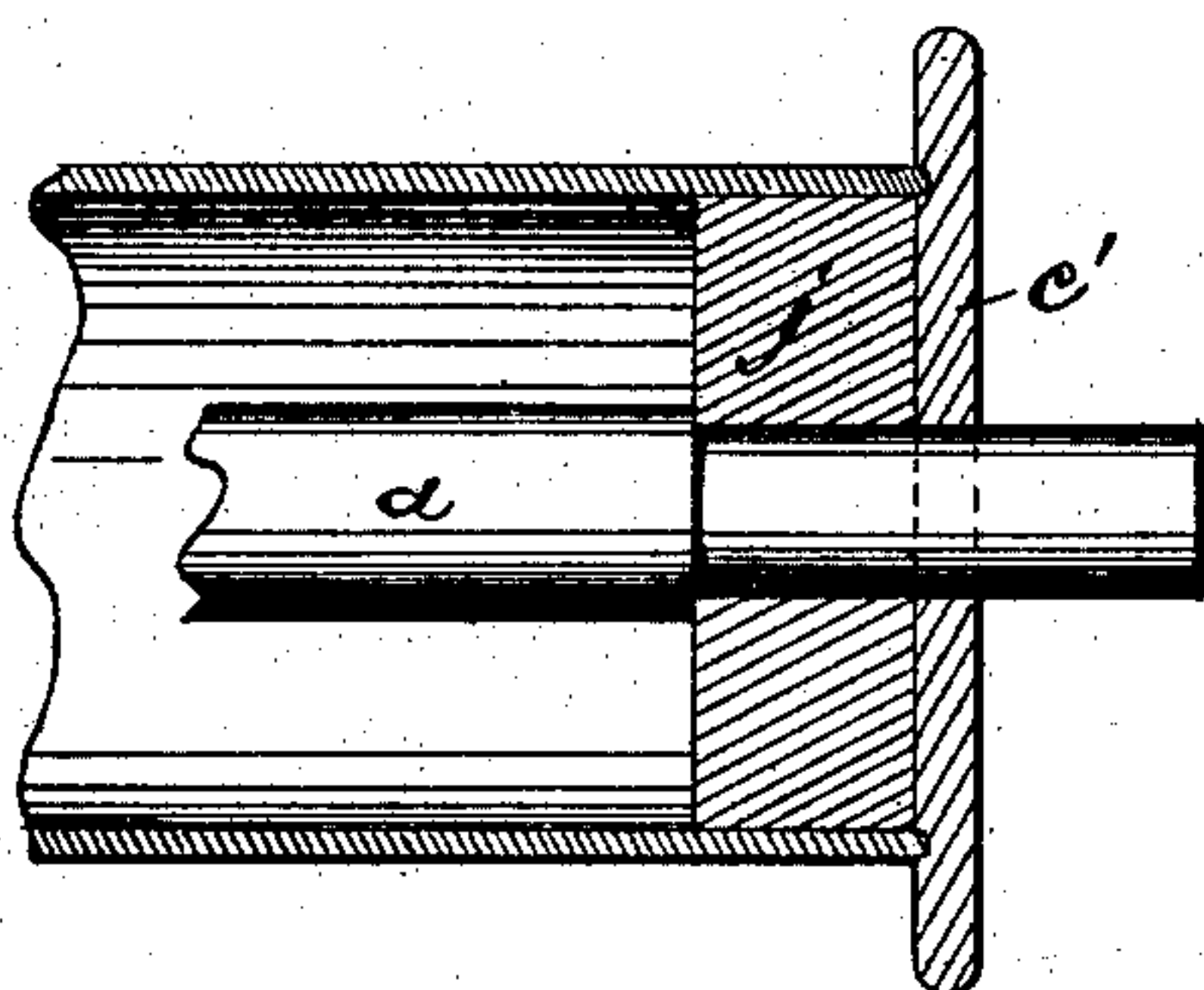


Fig. 4.

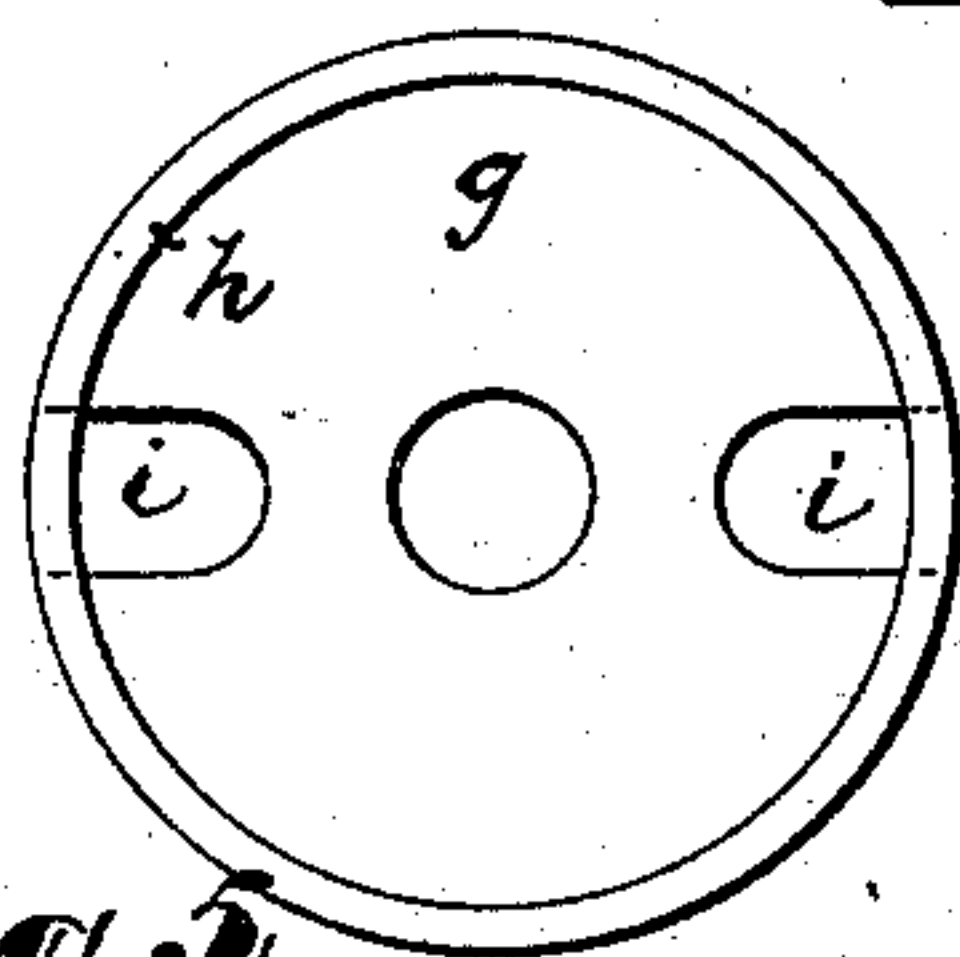


Fig. 5.

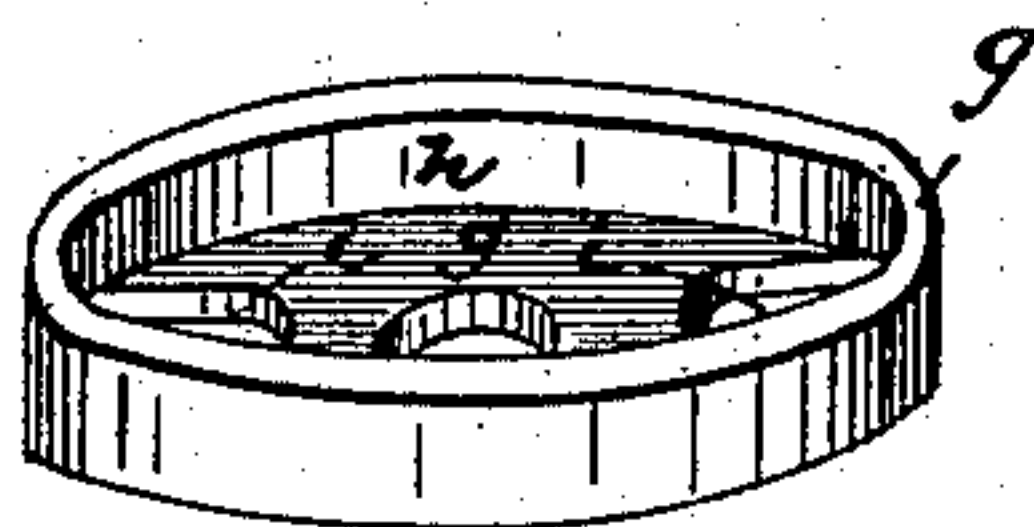


Fig. 6.

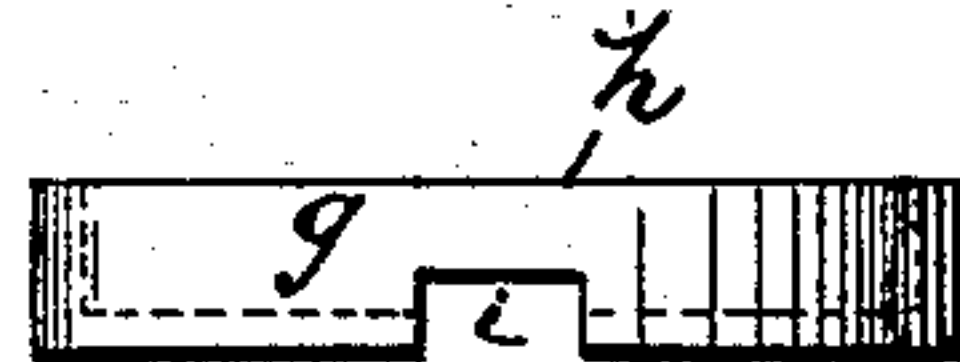


Fig. 7.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. HOWELL, OF NEWARK, NEW JERSEY.

CURTAIN OR SHADE ROLL.

SPECIFICATION forming part of Letters Patent No. 503,601, dated August 22, 1893.

Application filed December 21, 1892 Serial No. 455,884. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. HOWELL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Curtain or Shade Rolls; 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.

This invention relates to certain improvements in that class of curtain or shade rolls for coaches described in my contemporaneous application filed August 1, 1892, Serial No. 441,782, the object of the invention being to render the roller more noiseless and certain in its operation.

The invention consists in the improved shade or curtain roller and in the arrangements and combinations of parts, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings in which like letters indicate corresponding parts in each of the several views, Figure 1 is a front elevation of the improved roller. Fig. 2 is an end view of the same disconnected from the brackets, and the spindle being in section. Fig. 3 is a section on line *x*, and Fig. 4 is a section of the opposite end of the roller. Figs. 5, 6 and 7 are respectively a plan, a perspective view and side elevation of a certain sound-deadening washer showing more clearly the openings to receive the pawl bearings.

In said drawings, *a* indicates the tube of the roller; *b, b*, the brackets for carrying said roller, and *c, c'*, the end pieces attached to the tube and providing bearings for the center spindle *d*, the actuating spring, not shown, and the pawls *e*. The end piece, *c*, is cup-shaped on the outer side, to receive the said pawls and within the hollow or recess are raised bearings, *f*, on which the pawls are held by pivots or pins in any suitable manner. By means of the said bearings, the pawls

are held considerably away from the wall of the end piece and thus admit of the placing of a washer or sound-deadener, *g*, between, as indicated in Fig. 3. The said sound deadener is provided with an annular flange *h*, at the outer edge, which lines the annular sides of the end piece and forms a cushion against which the pawls may strike when thrown outward by centrifugal force or otherwise. But the particular or more especial advantage of the annular cushion arises from the fact that, when employing two pawls, insuring a more quick and certain holding of the curtain or shade, and one of said pawls is constantly loose and free to vibrate with every jar of the moving vehicle, the said loose pawl is prevented from striking against the metallic end piece and producing a rattling sound unpleasant to the ear, but, on the contrary, the said loose pawl is cushioned in its movements and the sound deadened.

The sound deadening cushion is recessed at *i*, to receive the bearings, *f*, for the pawl, and centrally perforated to receive the spindle, but I do not wish to be understood as limiting myself to the exact configurations and conformations shown, as various modifications may be made without departing from the spirit or scope of the invention.

At the opposite end of the roller from that having the parts above described, I have arranged in the tube and against the inner side of the end piece, *c'*, a cushion of felt, *j*, which is centrally perforated to receive and closely hug the spindle. The said cushion, being pressed into said tube, serves to prevent looseness of movement of the spindle in its bearings and thus reduces the noise while the fabric employed is peculiarly adapted to resist wear of the spindle and thus serves to increase the durability of the roll.

Having thus described the invention, what I claim as new is—

1. The improved shade or curtain roll herein described in which is combined with the end-piece, tube, spindle, and pawl, a sound deadener interposed between said end piece and pawl, substantially as set forth.

2. The improved shade roller, combining therein, a tube, spindle, cup shaped end

piece and an annular cushion lining the annular wall of the end—and adapted to receive the outwardly moving pawl and said pawl, all arranged and adapted to operate substantially as and for the purposes set forth.

3. In combination with the end-piece having the raised pawl bearings and pawls pivoted thereon, of the sound deadener *g*, having the annular flange, *h*, and recesses, *i*, substantially as and for the purposes set forth.

4. In combination with the tube *a*, end

piece *c'*, and spindle *d*, a felt cushion, fitting into said tube and hugging said spindle, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of December, 1892.

JOHN A. HOWELL.

Witnesses:

CHARLES H. PELL,
OSCAR A. MICHEL.