

Railway Car Axle-Box.

No. 159,386.

Patented Feb. 2, 1875.

Fig. 1.

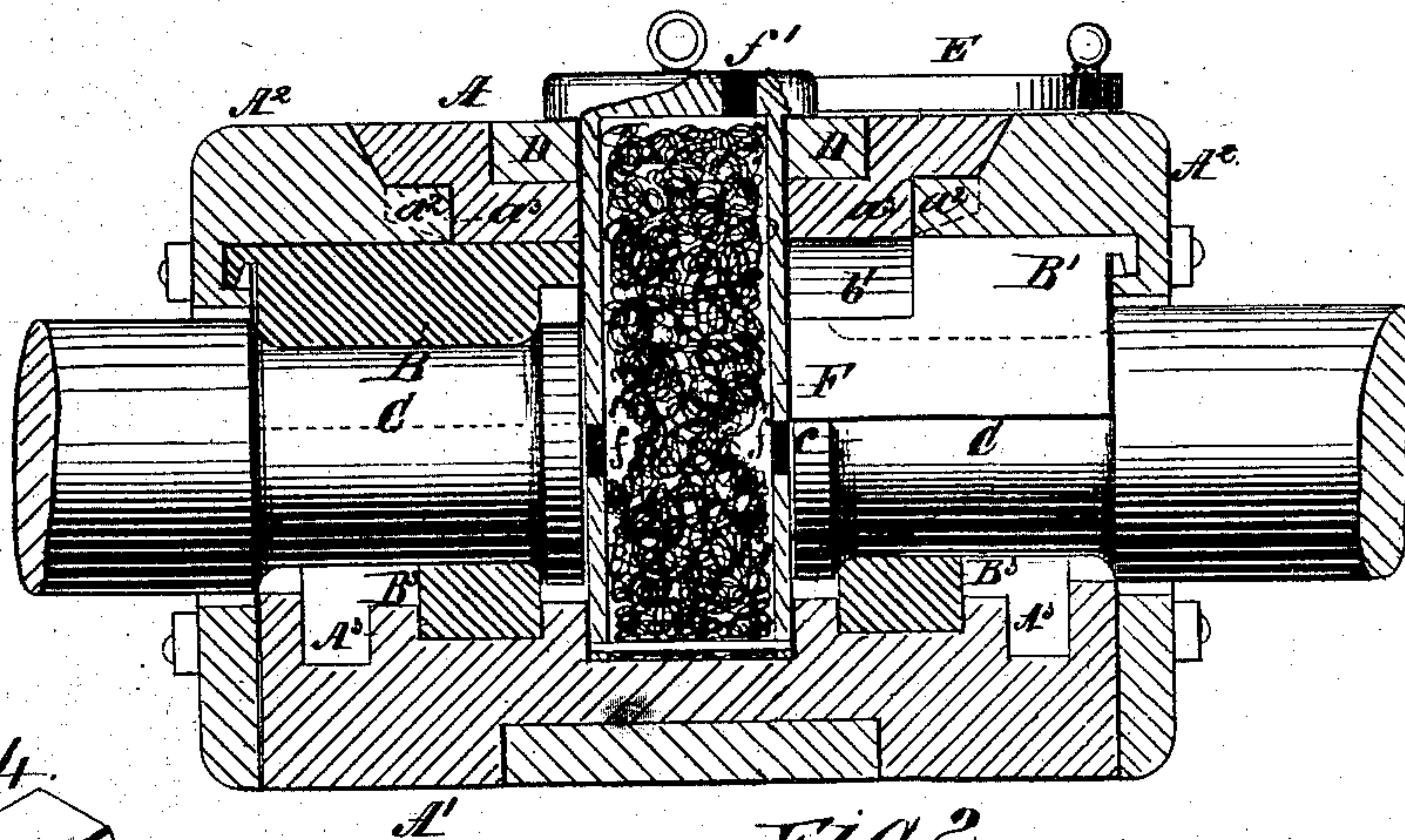


Fig. 4.

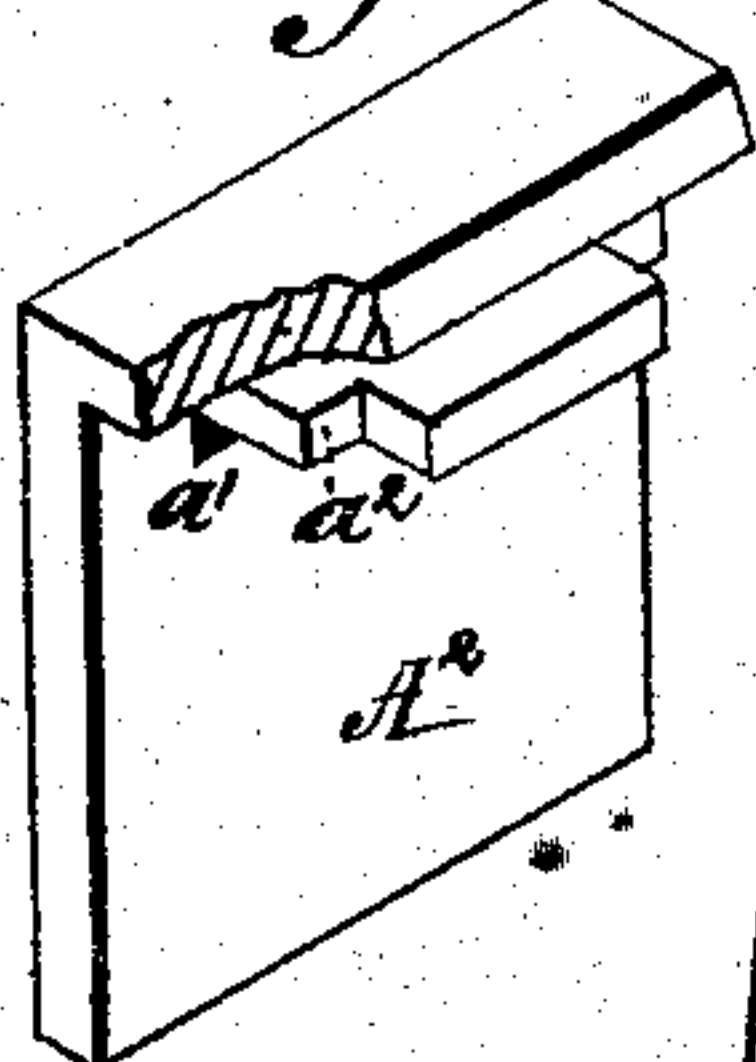


Fig. 2.

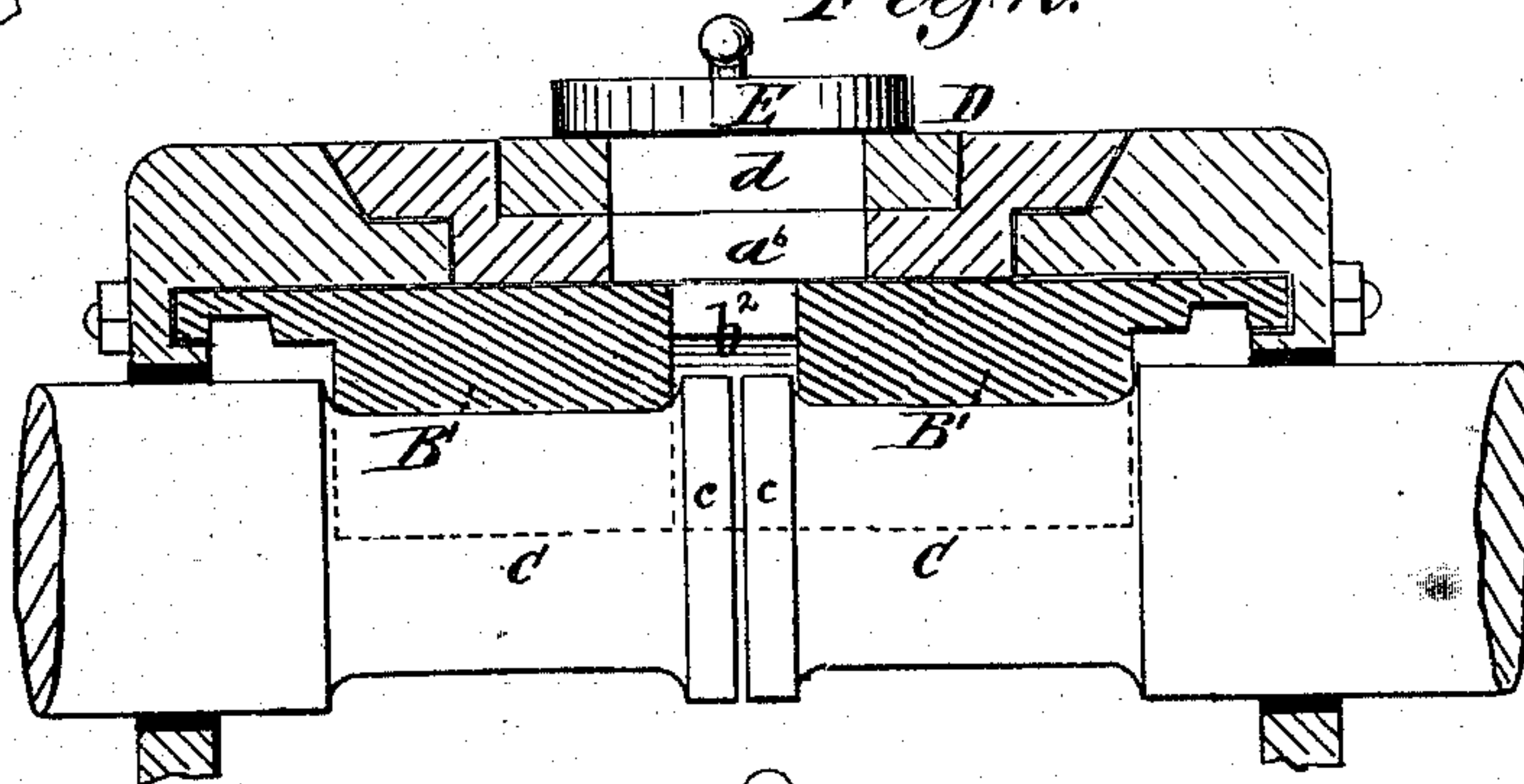


Fig. 3.

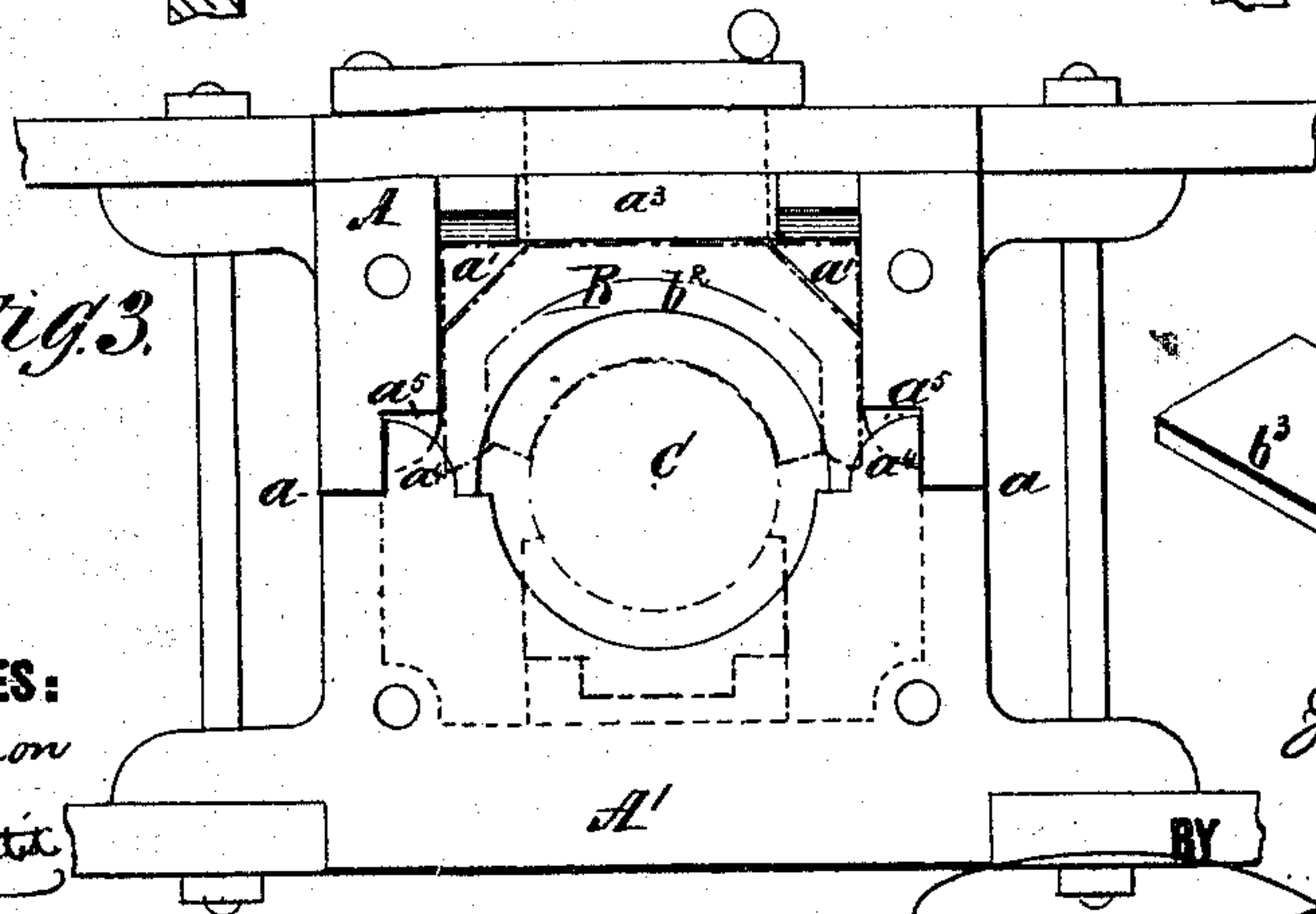
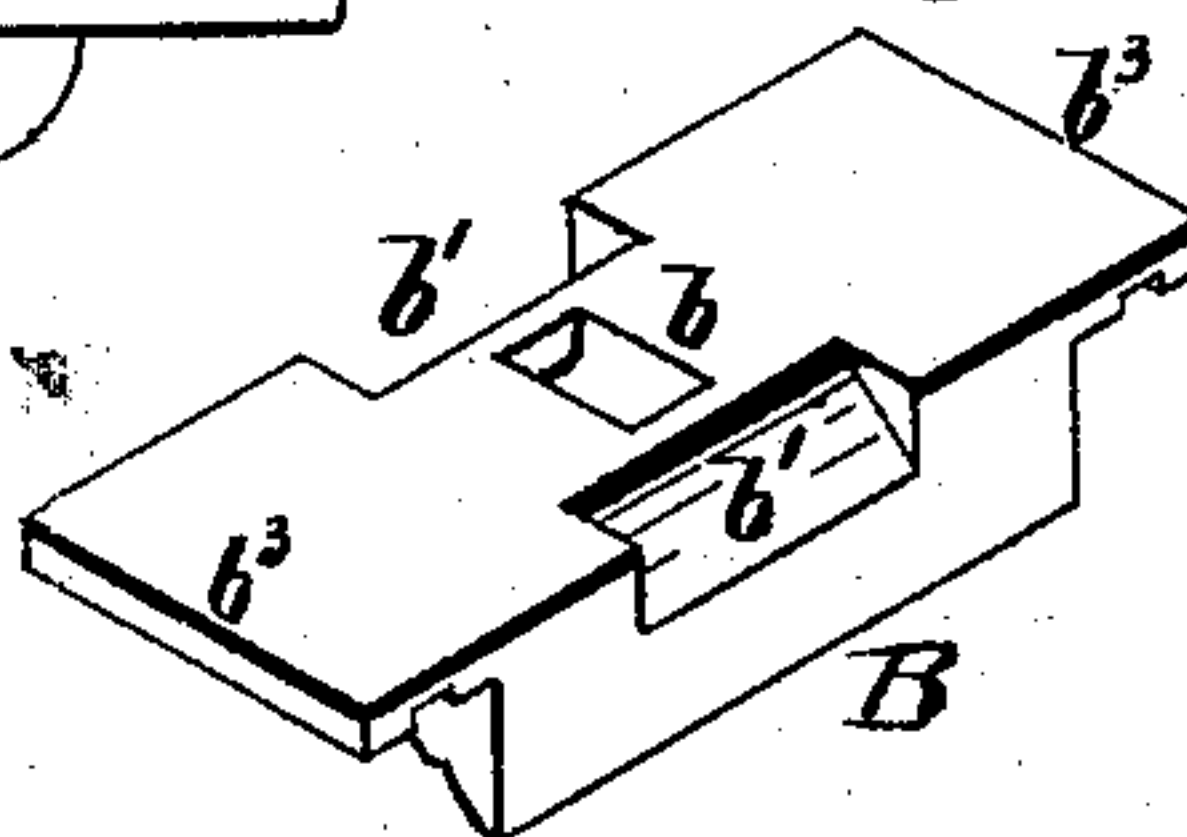


Fig. 5.



WITNESSES:

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JOHN M. BROSIUS, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN RAILWAY-CAR AXLE-BOXES.

Specification forming part of Letters Patent No. **159,386**, dated February 2, 1875; application filed September 16, 1874.

CASE B.

To all whom it may concern:

Be it known that I, JOHN M. BROSIUS, of Richmond, in the county of Henrico and State of Virginia, have invented a new and Improved Car-Axle Box; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figures 1 and 2 are longitudinal sectional elevations; Fig. 3, an end elevation; Fig. 4, a perspective inside view of one of the ends of axle-box; and Fig. 5, a perspective view of the brass or bearing.

The invention relates to axle-boxes generally, but particularly to the middle boxes of truck adapted to changeable gages; and consists in several novel features of improvement, which will first be fully described, and then pointed out in the claims.

A A' represent an ordinary two-part axle-box. First, in the top of the brass B I make a central opening, *b*, directly over the ends of journals C C, an opening, *a*¹, in the top of box, a cavity, *d*, in the truck-bar D, and a hinged laterally-moveable cap, E. By this I can readily inject the lubricant upon the ends of journals, and quickly cover up the aperture, so as to exclude dust. Second, I make a circular recess, *b*², subjacently in the middle of brass B, so as to receive the end flange *c* of each journal, thus causing one axle inevitably to follow the other in turning off upon switches, and thus preventing the so oft recurring accident of an escape from the track of the wheels one side. Third, I provide the brass B with end projections *b*³ that fit into a recess, *a*¹, in the box ends A² A² and under a projection, *a*², whose forward end fits into the recess *a*³, whereby the box is at once prevented from up and down or lateral play.

The plates A A¹ and the ends A² A² are held together and to the trunk by bolts and nuts or any other suitable device adapted to the purpose. The brass or bearing B in one continuous piece is employed upon a fixed road-gage. Where the trucks are expected to pass over changeable gages then I use a

bearing in two parts, B¹ B¹, otherwise constructed as above described. In this case I employ a hollow spacing-plug, F, which has side apertures *f*, opening upon the ends of the journals C, and an oil inlet, *f*¹, on top. In this I place cotton, wool, or other material, which will, by capillary attraction, supply the lubricant to the journal as it is needed. This material may be fastened on a wire, or held in any preferred manner. This plug thus serves two very useful purposes by constructing it with a cavity and the side apertures. In the bottom of box are formed or cast two hollow uprights, A³ A³, that receive and hold the bottom brasses B³ B³, and at the same time serve to brace and secure the plug F firmly in its place between them.

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

1. The combination, with a brass or bearing, B, having recesses *b*¹ *b*¹, of the two-part box A A¹, the upper part having lugs *a*¹ *a*¹, as and for the purpose described.

2. The combination, with an axle-box having central opening *a*, of the centrally-perforated brass B and the superposed truck-bar D, having detachably-capped hole *d*, as and for the purpose set forth.

3. The combination, with the journal end flanges *c* *c*, of a brass having the circular cavity *b*², as and for the purpose specified.

4. The combination, with the brass end projections *b*³, of the upper body section A, having recess *a*³, and the box ends A² A², having the projections *a*², as and for the purpose described.

5. The hollow cotton-filled plug F, having side apertures *f*, and applied as a spacer and lubricator for two journals, in the manner set forth.

6. The combination, with bottom brasses B³ B³ and the plug F, of the hollow uprights A³ A³ on the bottom and inside of axle, as shown and described.

J. M. BROSIUS.

Witnesses:

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