

R. BREWER.  
Car-Axle Boxes.

No. 162,615.

Patented April 27, 1875.

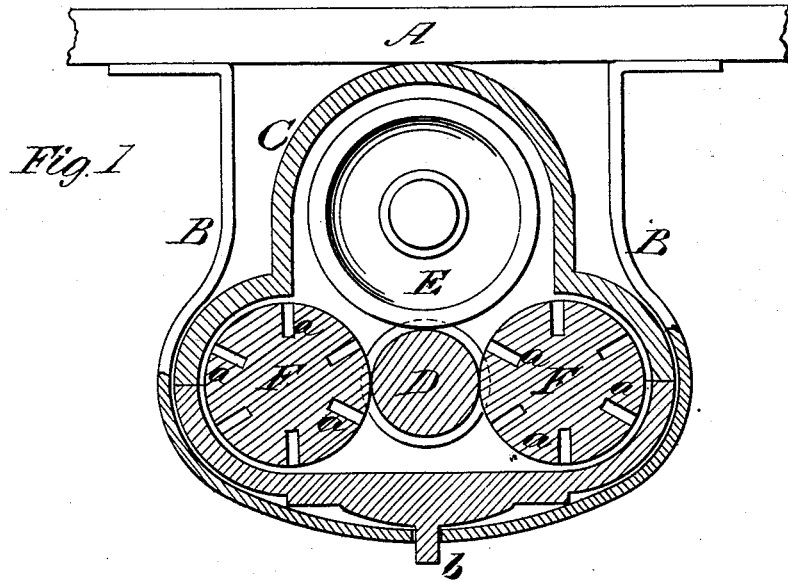


Fig. 1

Fig. 2

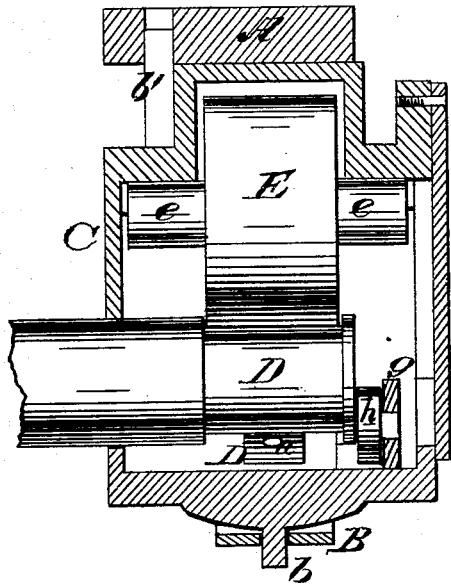
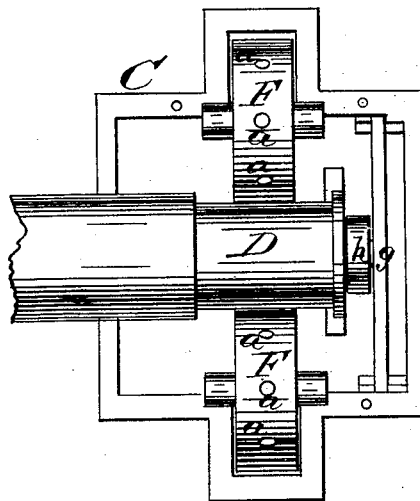


Fig. 3



WITNESSES  
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# UNITED STATES PATENT OFFICE.

RUSSELL BREWER, OF NEW YORK, N. Y., ASSIGNOR OF PART OF HIS RIGHT TO C. M. MORRISON, A. J. DUNNING, AND WARREN A. SHERWOOD, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **162,615**, dated April 27, 1875; application filed April 1, 1875.

*To all whom it may concern:*

Be it known that I, RUSSELL BREWER, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in Axle-Boxes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my axle-box. Fig. 2 is a transverse vertical sectional view of the same; and Fig. 3 is a plan or bottom view.

This invention has relation to railroad axle-boxes, and also to means for lubricating the journals of the axles. It consists in hanging an axle-box in a strap or frame, which is rigidly secured to the car-bed in such manner that the said box is free to oscillate horizontally, and accommodate itself to the movements of the parts while turning curves. It also consists in a bearing-roller above the journal of the axle, in combination with two guide-rollers on opposite sides of the axle, which rollers have cupped peripheries for feeding oil to the journal, in combination with an end roller and its bearing. It also consists in an anti-friction roller bearing for the axle-journal combined with three anti-friction rollers around the journal, as will be hereinafter explained.

In the annexed drawings, A designates part of a car-bed, and B a strap-frame, which is rigidly secured thereto. Inside of this frame B is the journal-box C, which is connected to it by a pivot, *b*, and to the bed A by a pivot, *b'*. These pivots allow the box C to oscillate horizontally in the frame B while the train is

turning a curve. D designates the axle-journal, on which bears a large anti-friction roller, E, the gudgeons *ee* of which have their bearings in the box C. Below the roller E, and on opposite sides of the journal D, are two anti-friction rollers, F F, the gudgeons of which have their bearings in the box C, and the peripheries of which have cups *a* in them for the purpose of supplying oil to the journal. Rollers F F are guides for keeping the journal in its place directly under the bearing-roller E, and affording the two side rolling-surfaces for the journal. To prevent undue friction on the end of the journal, and also to prevent the shoulder of the journal from causing the binding of rollers E F F against the frame, I use a roller, *h*, the gudgeon of which turns in a bearing, *g*, which is removable.

What I claim as new, and desire to secure by Letters Patent, is—

1. The car-axle box C in combination with a strap-frame, B, and pivots *b b'*, which allow said box to oscillate horizontally, as and for the purpose set forth.

2. The combination of bearing-roller E with journal D below it and rollers F F on opposite sides of said journal, and having the oil-cups *a* in their peripheries, the end roller *h*, and bearing *g*, substantially as and for the purpose set forth.

3. The roller *h* in combination with journal D and bearing *g*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

RUSSELL BREWER.

Witnesses:

D. D. KANE,  
GEORGE E. UPHAM.