A. A. FREEMAN.

Car-Axle Box.

No. 63,379. Patented Apr. 2, 1867.

Fig. 1.

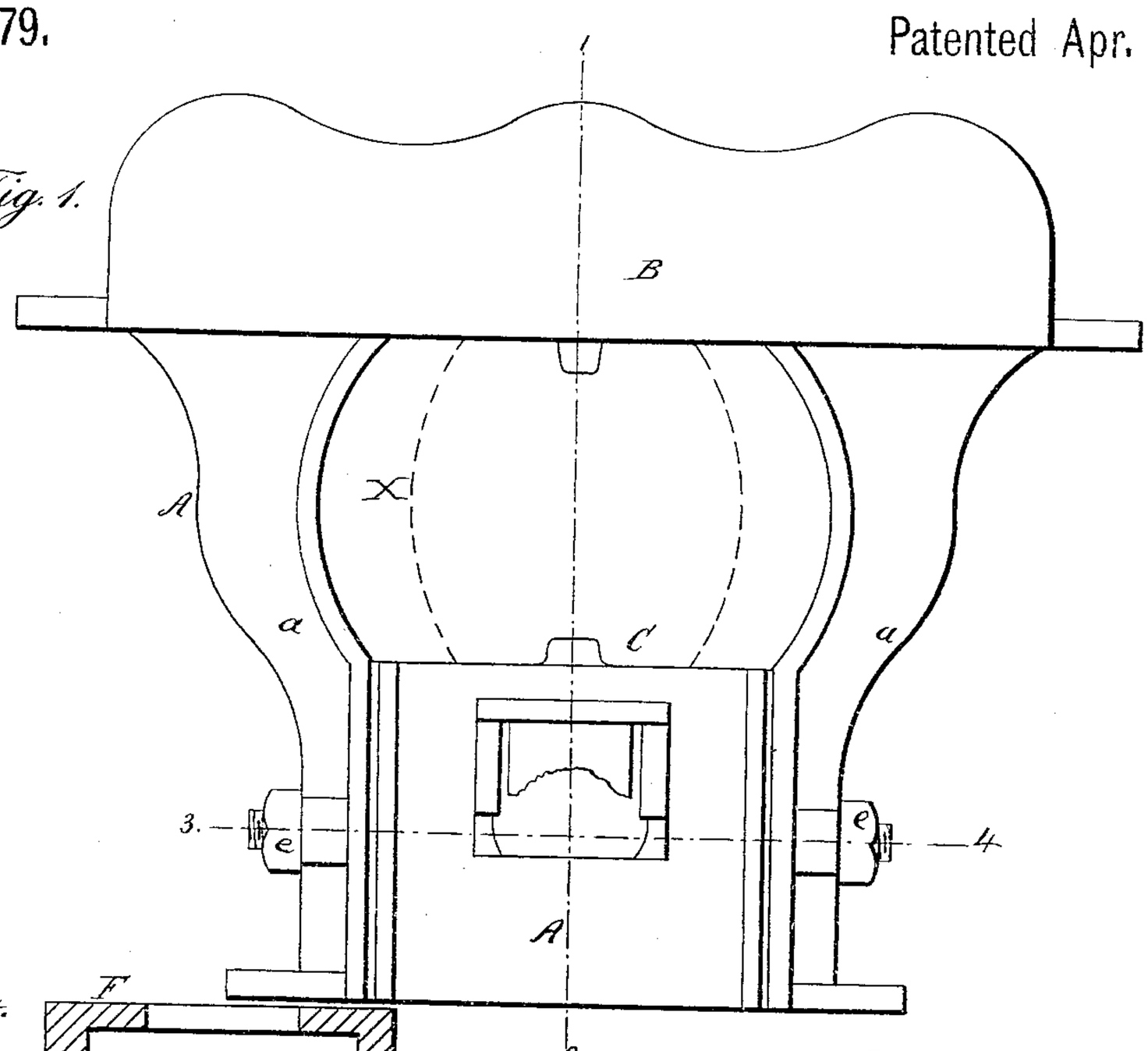


Fig. 4.

Fig. 2.

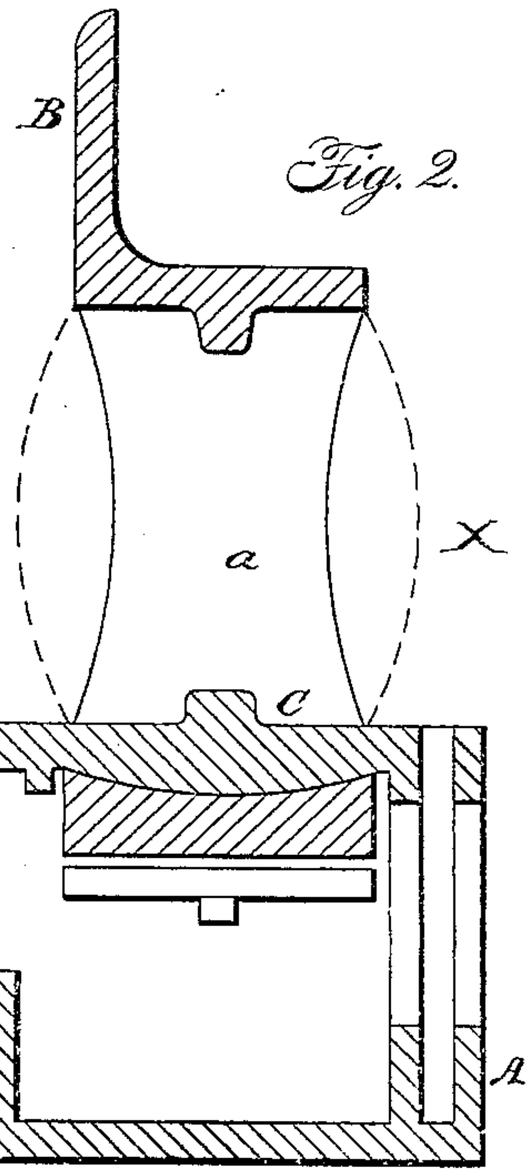


Fig. 3.

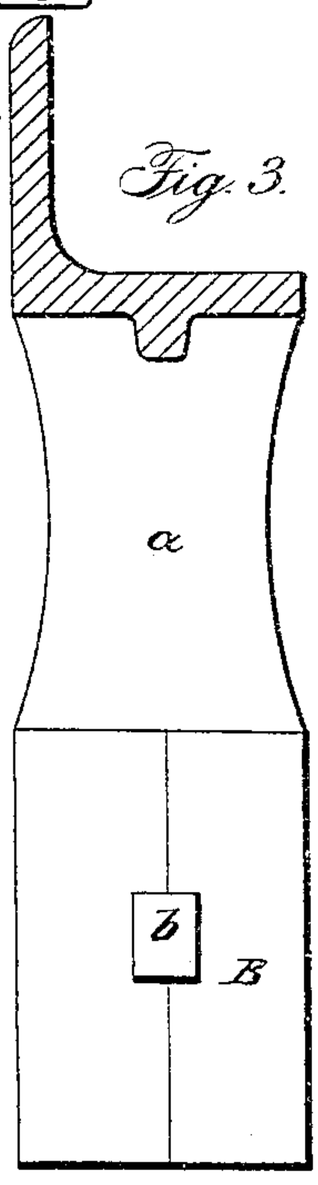
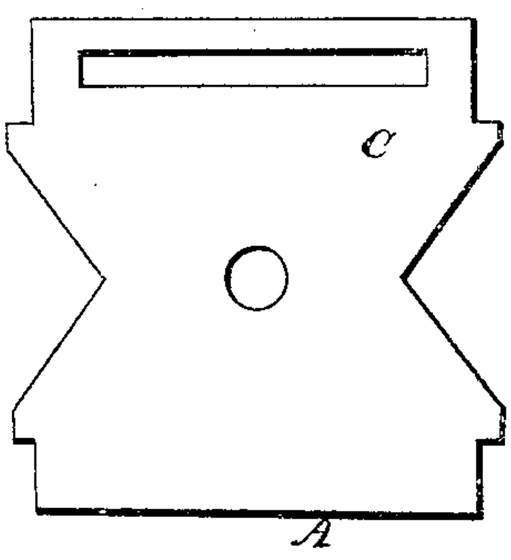


Fig. 5.



Witnesses:

Wm Albert Steel.

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Inventor:

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By his Atty

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United States Patent Office.

ALBERT A. FREEMAN, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 63,379, *dated April* 2, 1867.

IMPROVEMENT IN AXLE-BOXES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALBERT A. FREEMAN, of Philadelphia, Pennsylvania, have invented an Improvement in Hangers and Axle-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists of certain V-shaped guides, adapted to and combined with the hanger and axle-box of a railroad car, substantially as described hereafter, so that the box may always be maintained in its proper position without interfering with the free vertical movement of the hanger, and so that the guides may be readily packed, or replaced with new ones, thereby obviating the necessity of abandoning either the box or the hanger when the guides are worn.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a front view of a hanger and axle-box, constructed according to my improvement.

Figure 2, a section on the line 1–2, fig. 1.

Figure 3, the same as fig. 2, with the axle-box removed.

Figure 4, a sectional plan on the line 3–4, fig. 1; and

Figure 5, a view of the top of the box.

On the inner side of each of the legs *a a* of a "hanger," A, is a rib, *c*, which fits snugly in a recess in an adjusttable guide, B, the latter being secured to the leg of the hanger by a bolt, *b*, which passes through the guide and through the leg, and has on its outer end a nut, *e*. The inner face of each guide B is V-shaped, and is adapted to a V-shaped groove in the side of an axle-box, C; and between the top of the latter and the hanger intervenes an ordinary gum-elastic spring, X, (shown by red lines,) or other suitable spring. As the car and its hangers rise and fall, the guides B will slide freely in the recesses at the sides of the box, while the latter will not only be maintained in its proper vertical position, but also, in consequence of the shape of the guides, will be retained so firmly between the arms *a a* that it will effectually resist any tendency on the part of the axle and its wheels to force it outwards or inwards. When the guides become so worn away that the box fits loosely between them, the nuts *e e* are loosened, each guide is brought firmly against the adjacent side of the box, and the space between the guide and the leg of the hanger is filled by inserting in the same thin sheets *x* of metal or other suitable material. The guides, after being thus adjusted, are then secured in their position by tightening the nuts *e*. The guides may be repeatedly adjusted in this manner (additional plates *x* being introduced at each adjustment) until they are so worn away as to be no longer serviceable, when they may be replaced by new guides.

I claim as my invention, and desire to secure by Letters Patent—

V-shaped guides B B, adapted to and combined with the hanger A and box C, substantially in the manner and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT A. FREEMAN.

Witnesses:

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W. J. R. DELANY.