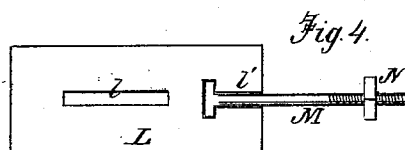
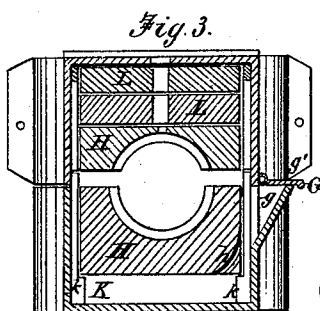
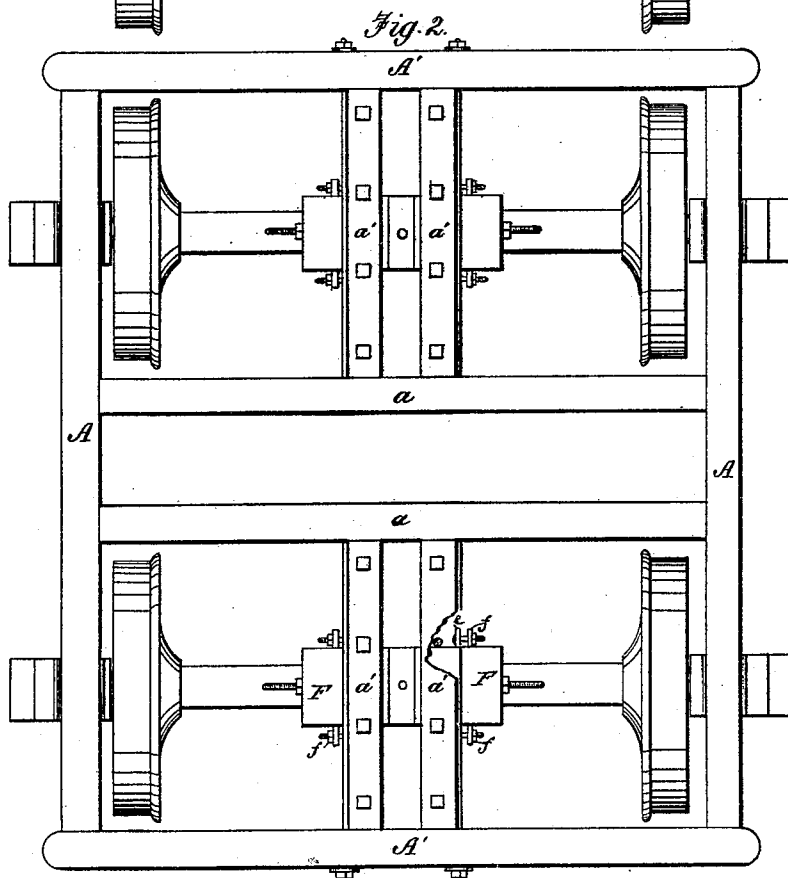
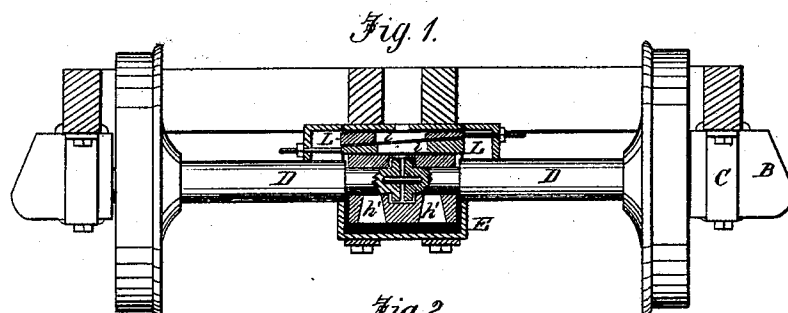


J. M. BROSIUS.

CAR AXLE-BOX.

No. 178,723.

Patented June 13, 1876.



WITNESSES:

W. W. Hollingsworth
John C. Keman

INVENTOR:

John M. Brosius
BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN M. BROSIUS, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **178,723**, dated June 13, 1876; application filed December 6, 1875.

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 Railway-Car Truck and 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 3 are transverse vertical sections; Figs. 2 and 4, plan views.

The invention consists in extending out the end of the upper section of axle-box, and making this extension detachable, so as to furnish convenient access to the space within and allow the brass to be replaced; in applying to one side of box an inclined spout, and making an excision on side face of brass, to allow the lubricant to be poured into the box, so as to easily reach the packing, and also the insertion of packing; in the employment of shouldered standards on the corners of box to support the brass above the bottom and allow ample space for the packing; in using two overlapping adjustable wedges in each box for bringing the brasses, as they wear, in proper juxtaposition to the journals; and in making the bottom section in one piece, and with a median recess, to envelop half the two journals, so as to hold the axle more steadily and prevent deflection.

A A' represent a car-truck, having the inner cross-pieces *a a* secured to the outer pieces A, and between said cross-pieces and the pieces A' are placed the short pieces *a' a'*. B represents the bearings secured by straps C on the pieces A, and D the axles journaled in them. These axles are doweled together at their inner ends and journaled in boxes E. Thus far there is nothing on which I propose to secure protection in this application. I make the box E on the upper section with an extension, F, which is bolted through flanges *ef* to the main body. This detachable extension is added to the upper section for the purpose of giving ready admission to the space used for the brasses, so that the latter may be entered or removed with facility and convenience. I also make a spout, G, on the lower section, having the incline *g*, and a corresponding excision, *h*, on the side of brass H, so that the oil may be readily applied and flow down to saturate the porous packing under the brass. The lubricant, having saturated

the packing, is gradually transferred by capillary attraction, through brass-holes *h'*, to the journal. This spout is covered by a door, *g'*, which may be hinged to upper section or secured in any other suitable manner.

In order to afford proper space in the box for the reception of adequate packing, I place at the corners (and they may be placed at other points, though they are not necessary) the vertical standards K, having shoulders *k*, all placed at the same height, so as to support the brass at a considerable elevation above the bottom of box.

In order to take up wear upon the brasses, I use two overlapping wedges, L L, having closed slot *l* and open end slot *l'*, the former being a passage for the lubricant, and the latter to receive the head and neck of a bolt, M. On the latter's end is a thread, by which nuts N are adjusted to draw the wedges farther down in the box, and thus keep the brasses and journals in proper alignment.

The brass heretofore had a median recess in the upper section to receive a flange on journal; but I find that by making a similar recess in the lower section, and making that section in one piece, there is more steadiness imparted and less deflection of the axle.

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

1. An extension, F, clamped detachably to the upper section of a car-axle box, as shown and described, to enable the brasses to be easily removed and replaced.

2. The combination of spout G, having incline *g*, and corresponding excision on the brass, as and for the purpose set forth.

3. The combination, with an axle-box, of the corner standards K, having shoulders *k* at the same altitude, as and for the purpose specified.

4. The combination of slotted overlapping wedges L L and adjusting-screws M with the axle-box, as and for the purpose set forth.

5. A brass made in one piece, and having a median recess, *h'*, in lower section, combined with both journals, as and for the purpose specified.

The above specification of my invention signed by me this 3d day of December, A. D. 1875.

JOHN M. BROSIUS.

Witnesses:

SOLON C. KEMON,
CHAS. A. PETTIT.