

(No Model.)

W. T. VAN DORN.
DRAW BAR FOR RAILWAY CARS.

No. 586,701.

Patented July 20, 1897.

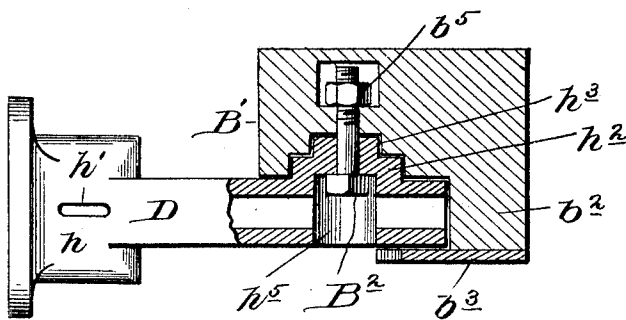
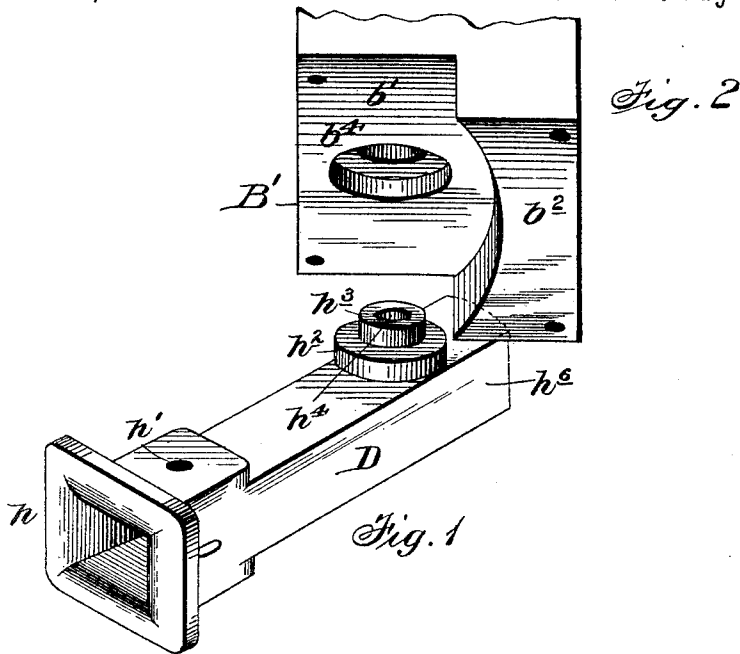


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM T. VAN DORN, OF CHICAGO, ILLINOIS.

DRAW-BAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 586,701, dated July 20, 1897.

Application filed August 3, 1896. Serial No. 601,466. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. VAN DORN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Draw-Bars for Railway-Cars; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention has relation to improvements in draw-bars for railway-cars.

The invention is particularly designed for use on cars moving on street-railways, whether surface or elevated, it being applicable to any cars, and especially to such used on tracks having abrupt and sharp turns or curves, the purpose being to provide a draft appliance which will readily and automatically adapt itself to the line of draft between adjacently-coupled cars, no matter what may be the deviations of the track from a straight line.

I have fully and clearly illustrated the invention in the accompanying drawings, forming a part of the specification, and wherein—

Figure 1 is a perspective view of a draw-bar constructed in accordance with my invention. Fig. 2 is an inverted perspective of the bearing-plate which holds the draw-bar in operative position to the car. Fig. 3 is a side view of the draw-bar and bearing-plate, partly in vertical longitudinal section, showing the parts in engaged and operative relation.

Referring to the drawings, Figs. 1, 2, and 3, D designates a draw-bar, which may be of any suitable design and conformation adapted to the purposes intended. I have illustrated it as consisting of a rectangular piece of metal, formed with a head h , having a mouth to receive a coupling pin and link and provided with a coupling-pin hole h' . Adjacent the rear end of this draw-bar, and on the upper face thereof, is formed a round bearing consisting of two rings h^2 h^3 , of different diameters, the upper one h^3 being of less diameter than the lower one, so that a shoulder

is formed at their union. A bolt-hole h^4 is formed vertically through the draw-bar and extends centrally through the bearing, substantially as shown. A seat h^5 may be formed in the draw-bar to take the head of the bolt.

B' designates a bearing-plate adapted to be secured to a timber or other convenient and proper part of the car. This bearing-plate consists of a suitable metal plate having a flat under surface b' to lie flat upon and ride on the upper face of the draw-bar and formed with a downward-extending end flange b^2 , the inner wall of the flange being curved out on the line of circular movement of the end h^5 of the draw-bar, the rounded end of the draw-bar abutting against the vertical face of the flange, and to assist in maintaining the draw-bar in longitudinal alinement a flange-plate b^3 may be secured on the lower face of the flange b^2 to set against the rear under face of the draw-bar, substantially as shown in Fig. 3 of the drawings. In the bearing-plate B' is formed a circular bearing socket or seat b^4 to take the raised circular bearing on the draw-bar, the bearing in plate B' being a counterpart of the bearing on the draw-bar, substantially as shown in Fig. 3 of the drawings.

B² designates a bolt holding the draw-bar and bearing-plate together and constituting the pivotal support on which the draw-bar swings or moves in a horizontal plane. A nut b^5 holds the bolt securely in position.

The operation of the device is apparent from the foregoing description, taken in connection with the drawings. The parts being properly assembled and secured together and the device secured to the car, the operation is automatic, being effected by the direction of the pull between adjacent cars.

What I claim is—

1. In a draw-bar, the combination of the bearing-plate B' adapted to be secured to the timbers of a car and formed with a flat bearing-face on its under side and a downward-extending end flange b^2 having its inner vertical wall curved out, and formed with a bearing-seat consisting of upper and lower round bearing-recesses of different diameters and a bolt-hole through the said plate and central with the bearing-recesses therein, the draw-bar D formed on its upper face with a bear-

ing consisting of two rings h^2 h^3 of different diameters and a bolt-hole centrally through the bearings, and a bolt through the bolt-holes on which the draw-bar swings on a horizontal plane.

2. In a draw-bar, the combination of the bearing-plate B' adapted to be secured to a car and formed with a flat bearing-face on its under side and a downward-extending end flange b^2 having its inner vertical wall curved out and formed with a bearing-seat consisting of upper and lower round bearing-recesses of different diameters and a bolt-hole through the plate central with the bearing-recesses, a flanged plate b^3 secured on the lower face

of the flange b^2 to set under and support the rear end of the draw-bar, the draw-bar D formed on its upper face with a round bearing consisting of two rings of different diameters and a bolt-hole through the draw-bar and the bearing thereon, and a fastening-bolt through the parts at the bearings on which the draw-bar swings on a horizontal plane.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. VAN DORN.

Witnesses:

B. CASON,

C. L. TREVITT.