(No Model.) 2 Sheets—Sheet 1.

J. W. CLOUD.

CAR BOLSTER.

No. 588,555. Patented Aug. 24, 1897.

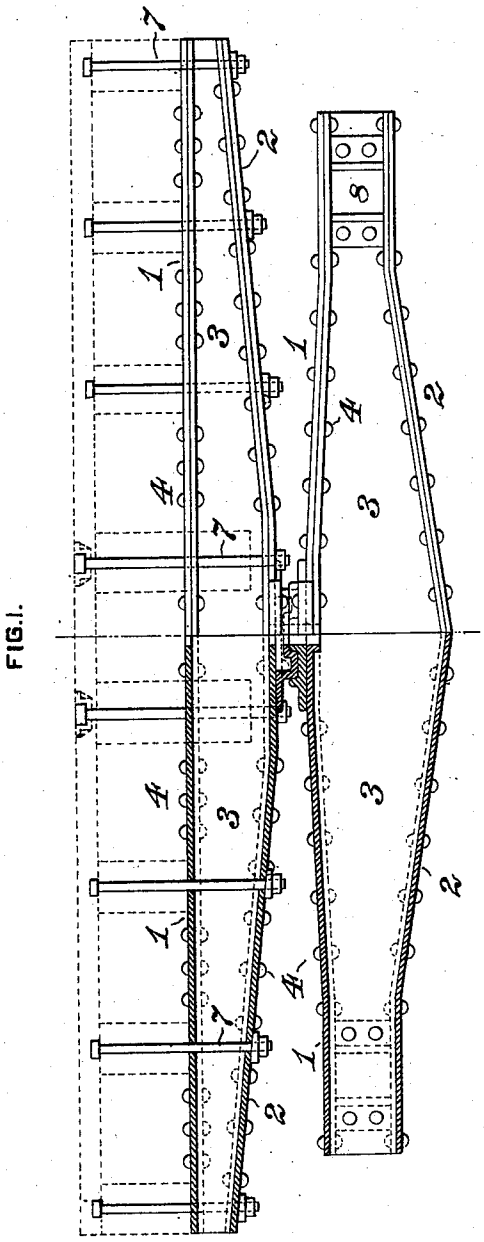


FIG. 1.

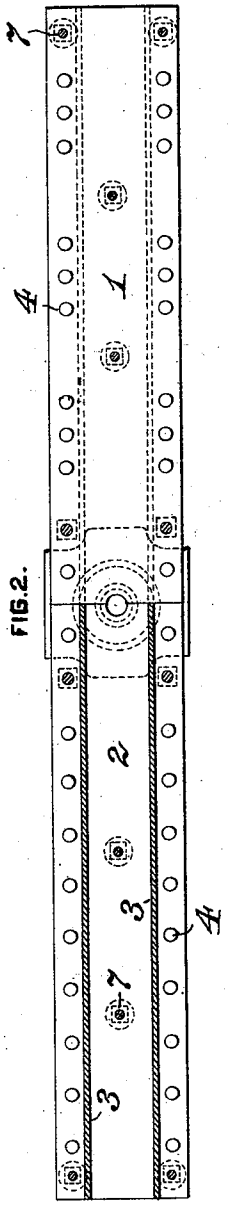


FIG. 2.

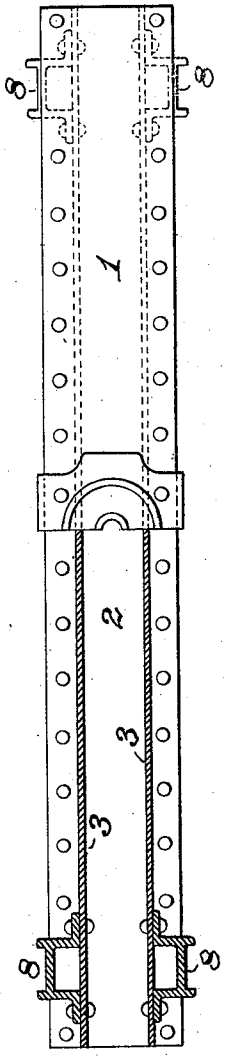


FIG. 3.

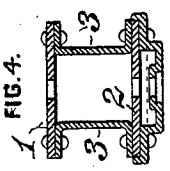


FIG. 4.

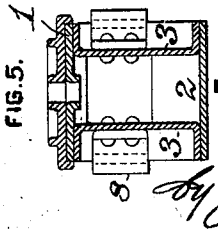


FIG. 5.

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 6.

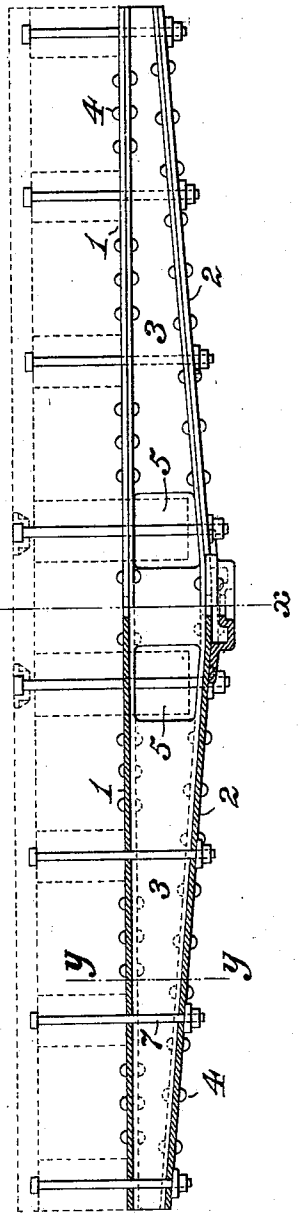


FIG. 7.

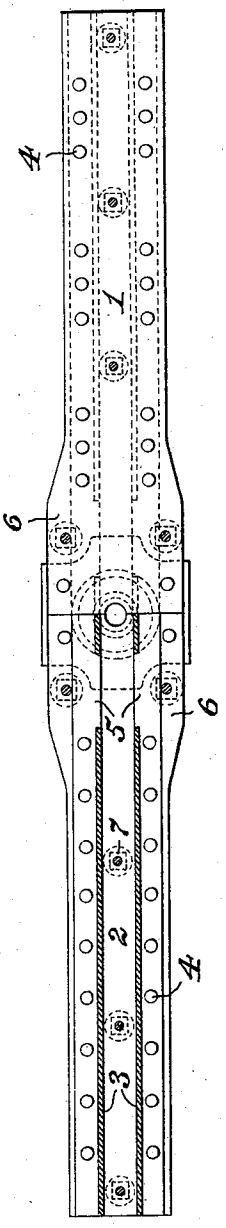


FIG. 9.

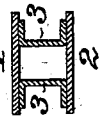
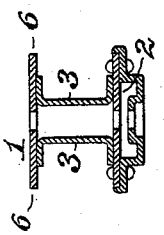


FIG. 8.



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UNITED STATES PATENT OFFICE.

JOHN W. CLOUD, OF CHICAGO, ILLINOIS.

CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 588,555, dated August 24, 1897.

Application filed April 20, 1897. Serial No. 632,905. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CLOUD, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Car-Bolsters, of which improvement the following is a specification.

My invention relates to bolsters through which the weight of a railroad-car body and its load is transmitted to the axles and wheels of the trucks upon which the car is carried; and its object is to provide a rolled-plate structure which shall be properly adaptable to the conditions of such service and which shall present the advantages of lightness, strength, and comparatively low cost of construction.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a view, half in vertical longitudinal central section and half in side elevation, of a body-bolster and a truck-bolster each embodying my invention and placed in operative relation; Figs. 2 and 3, plan or top views, each being half in horizontal section and half in elevation, of the body and the truck bolster, respectively; Figs. 4 and 5, transverse central sections through said bolsters, respectively; Figs. 6 and 7, plan and side views, respectively, each half in central section and half in elevation, of a body-bolster, illustrating a detail modification; and Figs. 8 and 9, transverse sections through the same at the lines $x\ x$ and $y\ y$, respectively, of Fig. 6.

In the practice of my invention I provide a rolled-plate car-bolster which is composed of an upper member 1 and a lower member 2, each extending in a horizontal or in horizontal and inclined planes, and two vertical side members 3 3, of channel form—that is to say, being plates having outwardly-turned upper and lower flanges—said side members extending continuously throughout the length of the bolster. The upper and lower members 1 and 2 may both be inclined from their central toward their end portions, as in the case of the truck-bolster, or one may be plane or horizontal and the other inclined, as in the body-bolster, the bolster being in either case of maximum depth at its middle portion. The side members 3 3 decrease in depth from their middle to their end portions in correspondence with the inclination that may be given to either or both of the upper and lower members, which they continuously space apart at the distance desired for the depth of the bolster, and held firmly together, the connection being effected by rivets 4, passing through the flanges of the side members and through the adjacent portions of the upper and lower members. The bolster is thus a box-beam structure of maximum depth at its middle and gradually reduced therefrom to its ends.

In the body-bolster shown in Figs. 1, 2, and 4 the webs of the side members are solid or unperforated, while in that of Figs. 6 to 9, inclusive, openings 5 for the passage of draft-timbers are formed in the side members on opposite sides of their middle vertical plane. In order to compensate for the weakening of the side members by the cutting away of metal to form said openings, the upper and lower members 1 and 2 are in such case preferably formed with widened or laterally-extended central portions 6, by which means correspondingly-increased strength is imparted to the bolster as a whole.

The body-bolster is connected to the sills of the car by bolts 7, passing through the upper and lower members and through the flanges of the side members and provided with nuts on their lower ends. Truss-rod seats and side bearings may be connected to the bolster and be properly supported in any desired positions. The truck-bolster is provided with column-guides 8, which are riveted to the side members 3 3 in proper positions to fit between the columns of the truck-frame. Center plates of any suitable and preferred construction are connected to the middle portions of the bolsters.

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

1. A rolled-plate car-bolster composed of upper and lower plate members, and two interposed side members, forming a structure of box or tubular section from end to end, the side members being inclined from their middle portions toward their ends and provided with flanges connected by rivets to the upper and lower members, substantially as set forth.

2. A rolled-plate car-bolster composed of upper and lower plate members, and two in-

terposed side members, which are substantially the same length as the upper and lower members and are inclined from their middle portions toward their ends and provided with flanges connected by rivets to the upper and lower members and openings in their webs on each side of their middle vertical plane for the passage of draft-timbers, substantially as set forth.

3. A rolled-plate car-bolster composed of upper and lower plate members having widened or laterally-extended central portions, and two interposed side members which are inclined from their middle portions toward their ends, and provided with flanges connected by rivets to the upper and lower members, and openings in their webs on each side of their middle vertical plane for the passage of draft-timbers, substantially as set forth.

JNO. W. CLOUD.

Witnesses:
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JOSEPH W. TAYLOR.