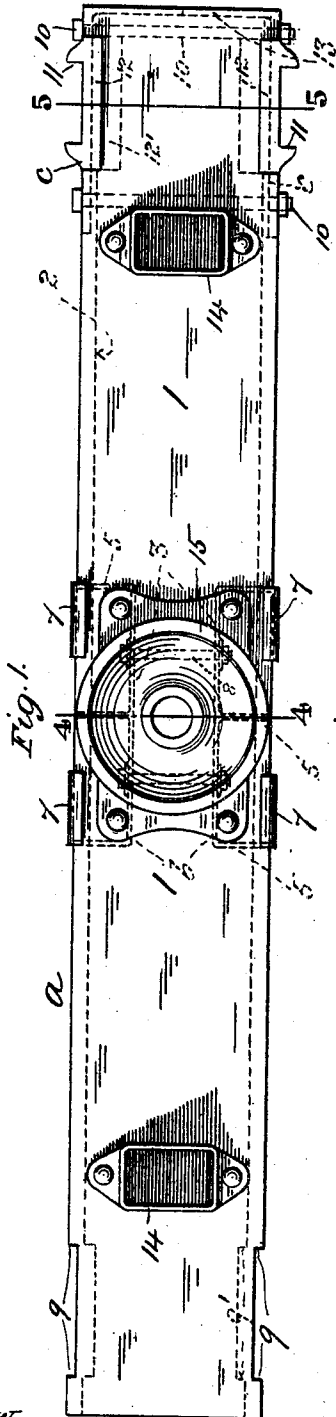


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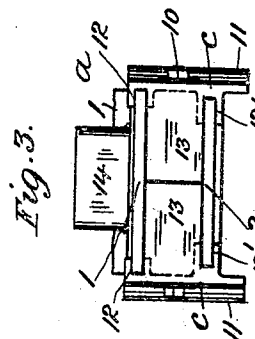
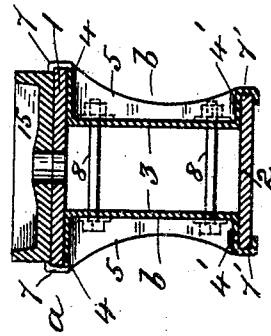
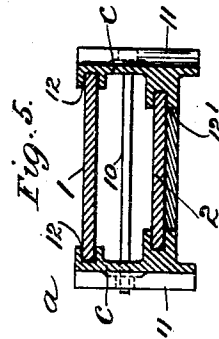
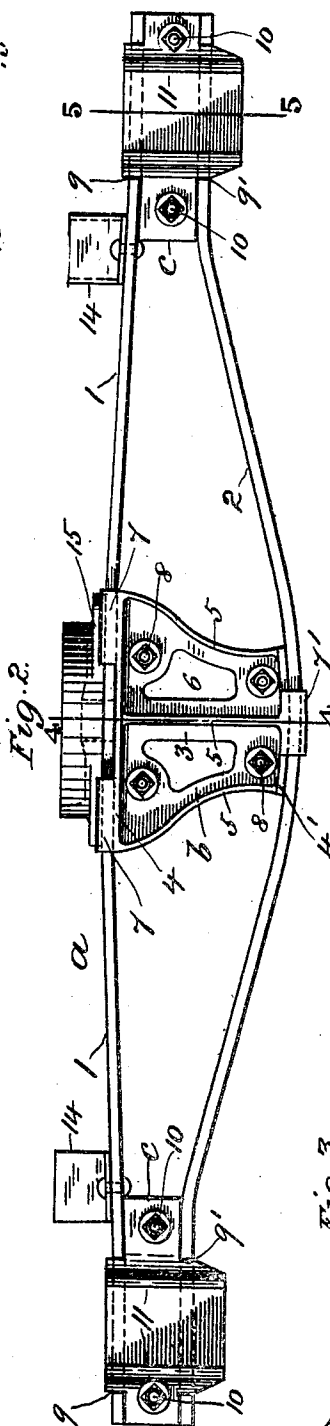
PATENTED JUNE 12, 1906.

J. B. BARNES.
CAR BOLSTER.

APPLICATION FILED MAR. 12, 1906.



WITNESSES
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JOSHUA B. BARNES, OF SPRINGFIELD, ILLINOIS.

CAR-BOLSTER.

No. 822,908.

Specification of Letters Patent.

Patented June 12, 1906.

Application filed March 12, 1906. Serial No. 305,613.

To all whom it may concern:

Be it known that I, JOSHUA B. BARNES, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Improvement in Car-Bolsters, of which the following is a specification.

My invention relates particularly to a car-truck bolster, and has for its object to produce a strong and durable bolster of light and inexpensive construction.

The invention consists in features of novelty, as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, whereon—

Figure 1 is a top plan view of my improved car-truck bolster; Fig. 2, a side elevation thereof; Fig. 3, an end view of the same; and Figs. 4 and 5, cross-sections through the bolster on lines 4 4 and 5 5, respectively, in Figs. 1 and 2.

Like letters and numerals of reference denote like parts in all the figures.

a represents my improved car-truck bolster, which comprises a top compression member 1 and a bottom tension member 2, (hereinafter referred to as the "top" and "bottom" members, respectively,) consisting, preferably, of a wrought-iron plate of suitable width and thickness.

The top and bottom members 1 and 2 are arranged at their maximum distance apart in the middle of the bolster *a* and converged therefrom to their end portions, which are straight and parallel to each other at their minimum distance apart to each end of the bolster *a*, the bottom member 2 being adapted thereat on its under side for the bolster-springs. The top member 1 is preferably cambered in the middle and the bottom opposite member 2 curved downward and thence inclined upward to its end portions, as shown, or the top and bottom members 1 and 2 may be otherwise configured in the side elevation of the bolster as desired.

The top and bottom members 1 and 2 are held apart and secured to each other in the middle of the bolster *a* by, preferably, two parallel struts or fillers *b*, composed of malleable iron or cast-steel and which in the present case are substantially channel-shaped in cross-section, their webs 3 being vertically arranged between and longitudinally with the top and bottom members 1 and 2 opposite to each other at a suitable and equal dis-

tance, respectively, on each side of the longitudinal center line of the bolster *a*, the top and bottom flanges 4 and 4' of each filler *b* extending outwardly from the web 3 and adapted to bear against the inner opposite faces, respectively, of the top and bottom members 1 and 2. The flanges 4 and 4' are united integrally to each other at the middle and ends (which are curved, as shown, or otherwise configured as desired) by ribs 5, which are integral with the web 3, suitable lightening-holes 6 being formed through the latter between the ribs 5, or in lieu of the double fillers *b* a single filler may be used, of any other suitable shape in cross-section, adapted to bear at the top and bottom against the inner faces of the members 1 and 2 and secured thereto by bolts or rivets.

The top flange 4 of each filler *b* is formed along its outer edge for a suitable distance from each end with a hook or clip 7 and the bottom flange 4' with a similar, preferably, central hook 7', the hooks 7 and 7' in the assembled position of the parts embracing or interlocking with the corresponding longitudinal edge portions of the top and bottom members 1 and 2, respectively, and thereby securely holding the top and bottom members 1 and 2 against the flanges 4 and 4'. The fillers *b* are secured to each other transversely and their hooks 7 7' simultaneously drawn into close engagement with the top and bottom members 1 and 2 by bolts 8, which pass through the webs 3 of the fillers *b*, as shown.

The top and bottom members 1 and 2 are held apart and connected to each other at each end portion of the bolster *a* by two opposite upright side pieces or fillers *c*, composed of malleable iron or cast-steel, each side piece *c* being adapted to engage in notches or recesses 9 9', formed therefor, respectively, in the longitudinal edges of the top and bottom members 1 and 2, as shown particularly to the left in Fig. 1, where the side pieces *c* are omitted for illustrating this particular constructive feature. The side pieces *c* are secured to each other transversely by bolts 10, which pass therethrough, as shown, each side piece *c* on its outer side having the column-guides 11 integral therewith, and on its inner side at the top and bottom, or thereabout, longitudinal slots 12 and 12', which are adapted to receive the corresponding recessed edge portions, respectively, of the top and bottom members 1 and 2, so that when

the side pieces *c* are drawn together tightly by the bolts 10 the top and bottom members 1 and 2 are firmly interlocked therewith by the slots 12 and 12'. Moreover, each side
 5 piece *c* is preferably formed at its end in alinement to the end of the bolster *a* with an inner flange 13, whereby when the side pieces *c* are in place and tightened together by the bolts 10 the flanges 13 will butt endwise
 10 against each other, and thereby close the end of the bolster *a*, as shown particularly in Fig. 3, or the flanges 13 may be omitted, if desired.

On the upper side of the top member 1 are secured the usual side bearings 14 and the
 15 truck center plate 15, which is immediately over the middle fillers *b* and perforated centrally for the king-bolt, as shown.

The advantage of my invention is that I obtain a light and inexpensive bolster of simple construction in which the various parts
 20 can be readily put together or disconnected at any place without special tools, and if either part becomes broken it can be replaced by a duplicate part without delay.

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

1. A car-truck bolster, comprising a top compression member and a bottom tension member, consisting respectively of a metallic
 30 plate, the said top member having the center plate and side bearings fixed thereto, two opposite metallic fillers interposed between and adapted to bear against the inner faces of the said plates at the middle portion of the bolster, the said fillers having hooks adapted to
 35 embrace the longitudinal edge portions of the said plates thereat, and means for securing the said fillers to each other, substantially as described.

40 2. A car-truck bolster, comprising a top

compression member and a bottom tension member, consisting respectively of a metallic plate, the said top member having the center plate and side bearings fixed thereto, two opposite side pieces interposed between and
 45 adapted to engage in notches formed therefor in the longitudinal edges of the said plate at each end portion of the bolster, the said pieces having slots in their inner sides adapted to embrace the longitudinal edge portions
 50 of the said notches, and means for securing the said pieces to each other, substantially as described.

3. A car-truck bolster, comprising a top compression member and a bottom tension
 55 member, consisting respectively of a metallic plate, the said top member having the center plate and side bearings fixed thereto, two opposite metallic fillers interposed between and adapted to bear against the inner faces of the
 60 said plates at the middle portion of the bolster, the said fillers having hooks adapted to embrace the longitudinal edge portions of the said plates thereat, means for securing the said fillers to each other, two opposite side
 65 pieces interposed between and adapted to engage in notches formed therefor in the longitudinal edges of the said plates at each end portion of the bolster, the said pieces having slots in their inner sides adapted to embrace
 70 the longitudinal edge portions of the said notches, and means for securing the said pieces to each other, substantially as described.

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

JOSHUA B. BARNES.

Witnesses:

MARY D. WHITCOMB,
 EDWARD W. FURRELL.