

(No Model.)

W. CASE.
METAL CAR BOLSTER.

No. 563,014.

Patented June 30, 1896.

Fig. 1.

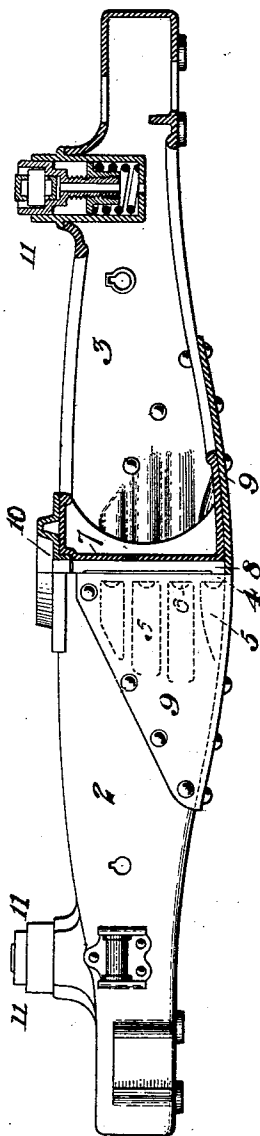


Fig. 2.

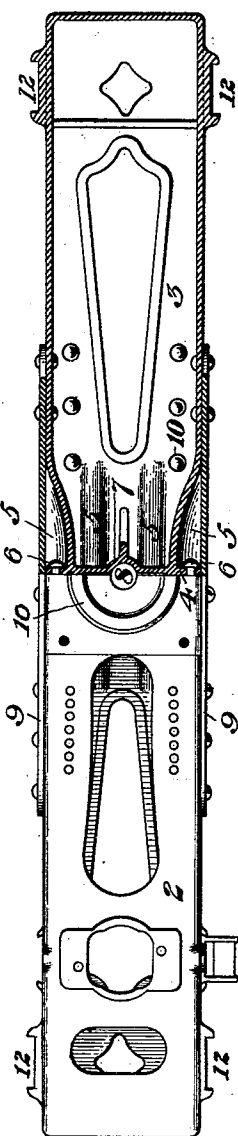


Fig. 3.

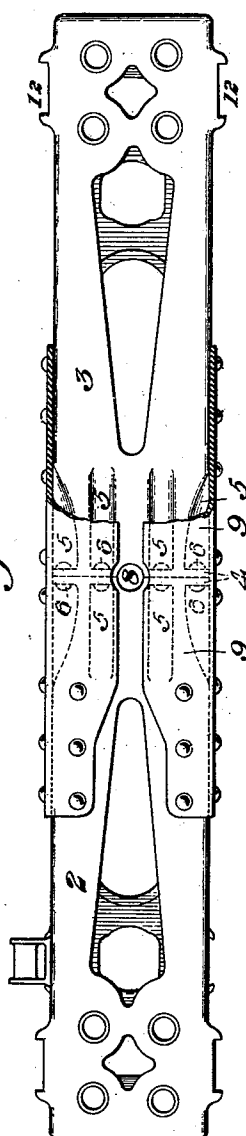
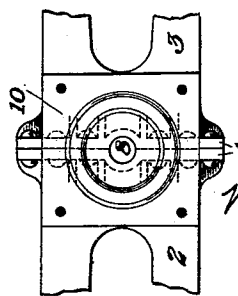


Fig. 4.



WITNESSES

L. A. Conner
E. E. MacBroom

INVENTOR

William Case
by Russell & Russell
his Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM CASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE NATIONAL
MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO.

METAL CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 563,014, dated June 30, 1896.

Application filed March 28, 1896. Serial No. 585,182. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CASE, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Metal Car-Bolsters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved bolster, one-half of which is shown in vertical section. Fig. 2 is a plan view, half of which is in horizontal section. Fig. 3 is a bottom plan view. Fig. 4 is a plan view of the middle of a bolster of modified construction.

As shown in the drawings, the bolster is composed of two sections 2 3, which are made of cast metal, preferably malleable iron, and are hollow, tapering toward the outer ends and having the inner ends closed or provided with transverse webs 4. Each section has also adjacent to its web 4 lateral recesses 5, open externally to afford means for the setting of the rivets 6. The presence of these recesses, causing the sections to be ribbed on lines between the rivet-spaces, contributes greatly to the strength.

The bolster is made up by joining the two sections with their webs 4 abutting against each other, and the rivets 6 are then applied through the webs so as to bind the sections together. The webs 4 are formed with semi-circular portions 7, which, when conjoined as shown in Fig. 2, constitute a central king-bolt hole 8.

To further strengthen the bolster, I rivet to it angled strengthening-plates 9 9, which fit against the bottom and sides, spanning the joint between the sections and covering the rivets, though it is within the scope of my invention to use a connecting plate or plates not angled, but fitting only against the bottom or sides of the bolster over the joint.

A center plate 10, side bearings 11, column-guides 12, and other fittings may be applied to or cast on the bolster as required.

The webs 4, by extending transversely across the bolster at the junction of the sections, transmit the load from the center plate to all parts of the bolster and resist the crush-

ing strains to which the bolsters are subjected when in use.

Within the scope of the broader claims of this specification, the form and construction of the parts may be varied by the skilled mechanic. For example, the bolster may be made in more than two sections, since I desire to claim, broadly, a bolster made in transversely-divided sections riveted through flanges, walls, or webs, external or internal, which not only serve to connect the sections, but also impart rigidity to the finished bolster. The advantage of this and of the other features of my bolster will be appreciated by those skilled in the art familiar with the severe conditions of use of metallic bolsters. By using several sections such as I show, I get a very strong bolster, easy to make, and well adapted to resist strains. The webs through which the sections of the bolster are riveted together may also be made on the sections in the form of externally-projecting flanges, as shown in Fig. 4, though I do not consider such construction so desirable, as the flanges might then interfere with other parts of the car structure.

The bolster which I have shown in the drawings is intended to be used as a truck-bolster, but with suitable modifications the principle of its construction may be applied to the making of body-bolsters.

I claim—

1. A car-bolster composed of transversely-divided metal sections, having webs or flanges through which they are riveted together.

2. A car-bolster composed of transversely-divided hollow metal sections having internal webs, which transmit the load through the bolster and brace the same.

3. A car-bolster composed of transversely-divided metal sections, having webs or flanges through which they are riveted together and a plate or plates applied to the sections and spanning the intermediate joint.

4. A car-bolster composed of transversely-divided hollow metal sections riveted together and having externally open lateral recesses at their meeting ends, within which recesses the rivets are set.

5. A car-bolster composed of transversely-divided hollow metal sections riveted together

and having at their meeting ends externally open lateral recesses, within which recesses the rivets are set, and a plate or plates fixed to the conjoined sections over said recesses.

5 6. A car-bolster composed of transversely-divided hollow metal sections riveted together and having at their meeting ends externally open lateral recesses, with intervening ribs, within which recesses the rivets are set, and
10 a plate or plates fixed to the conjoined sections over said recesses.

7. A car-bolster composed of two transversely-divided metal sections, having at

their meeting ends transverse webs with curved recesses thereon, which recesses, when 15 conjoined, constitute a central hole for the king-bolt, said sections being fixed together, and the web serving to strengthen the bolster at the middle of its length.

In testimony whereof I have hereunto set 20 my hand.

WILLIAM CASE.

Witnesses:

CLAYTON MARK,
LILLIAN MARDORF.