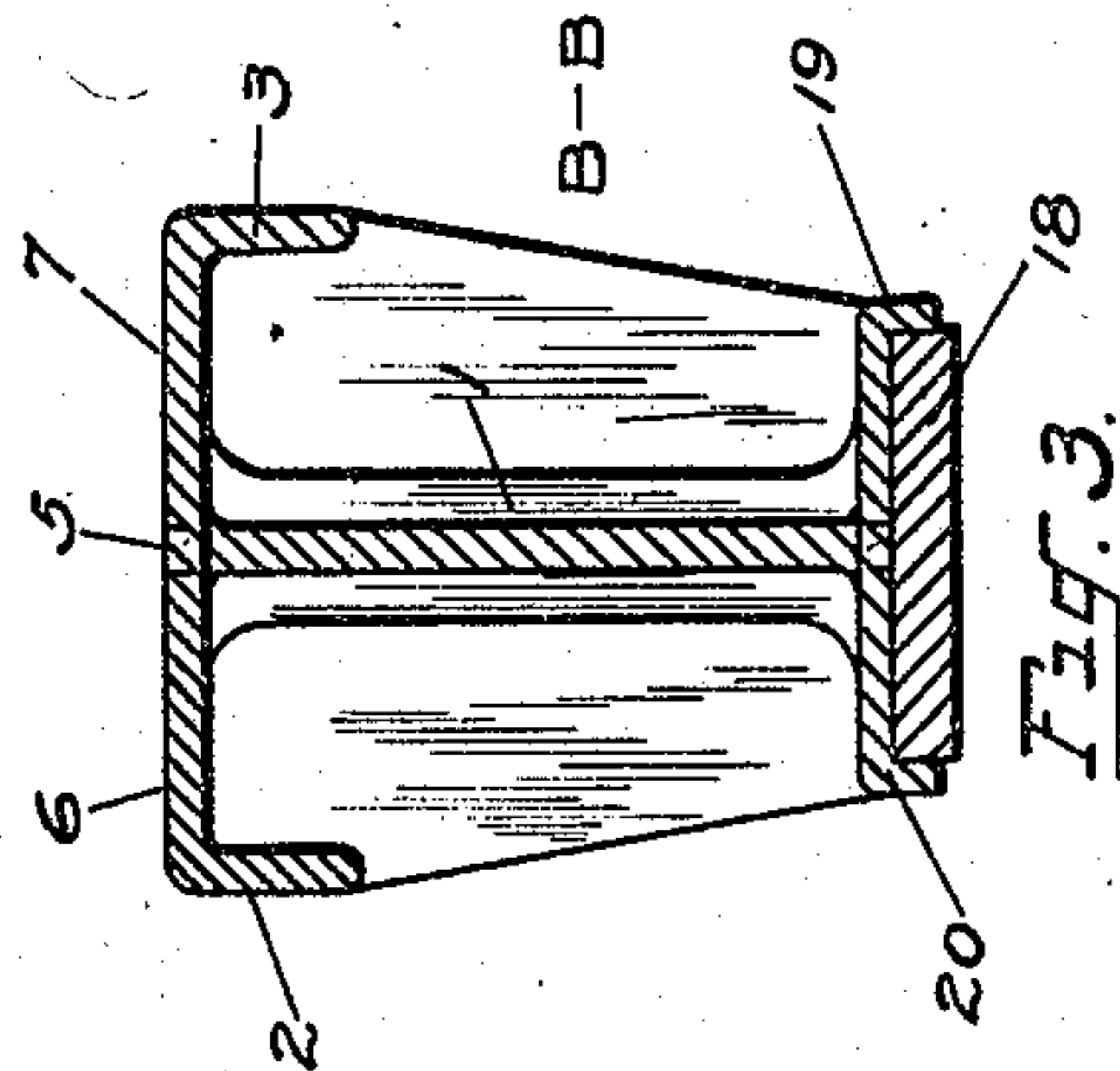
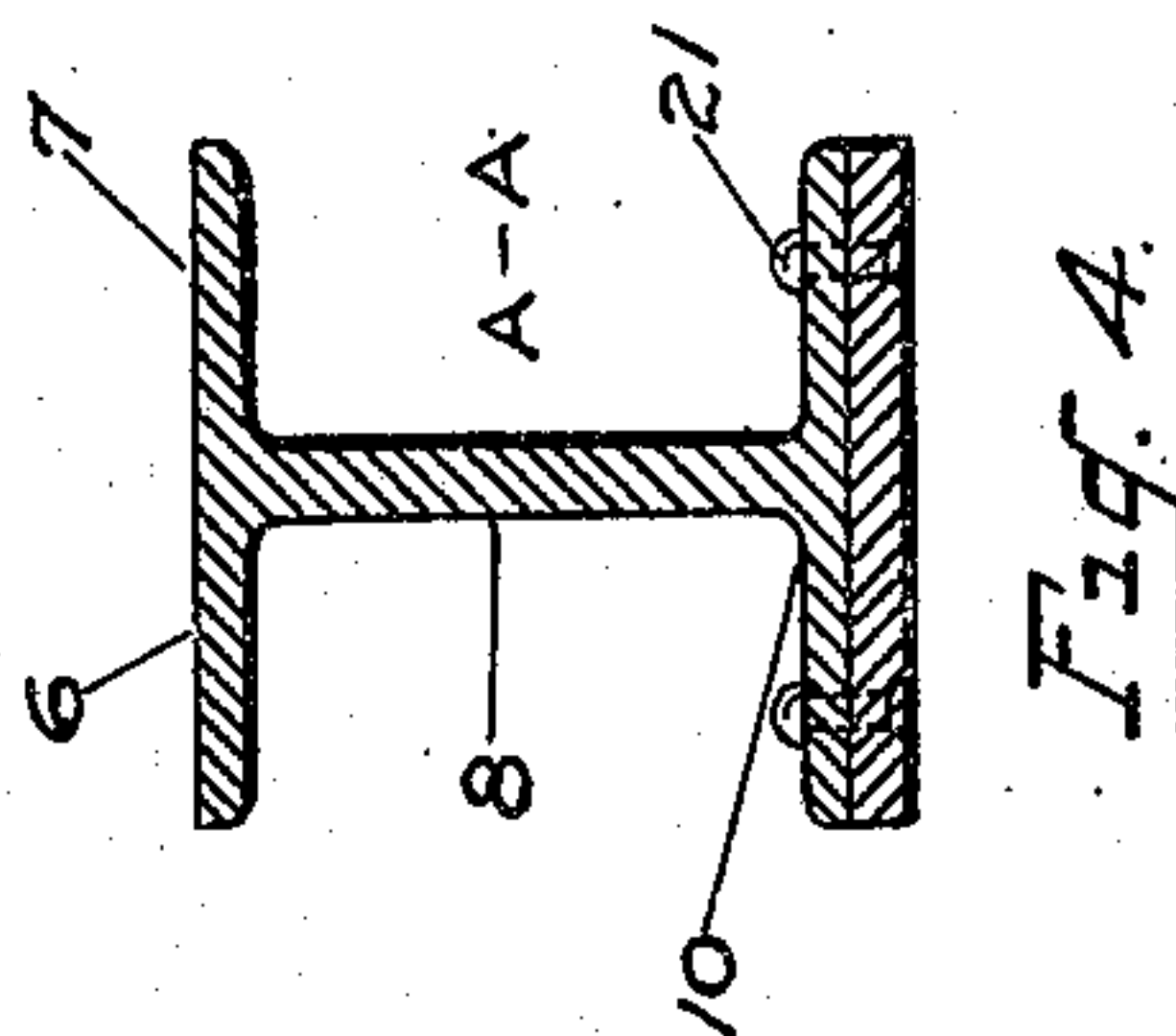
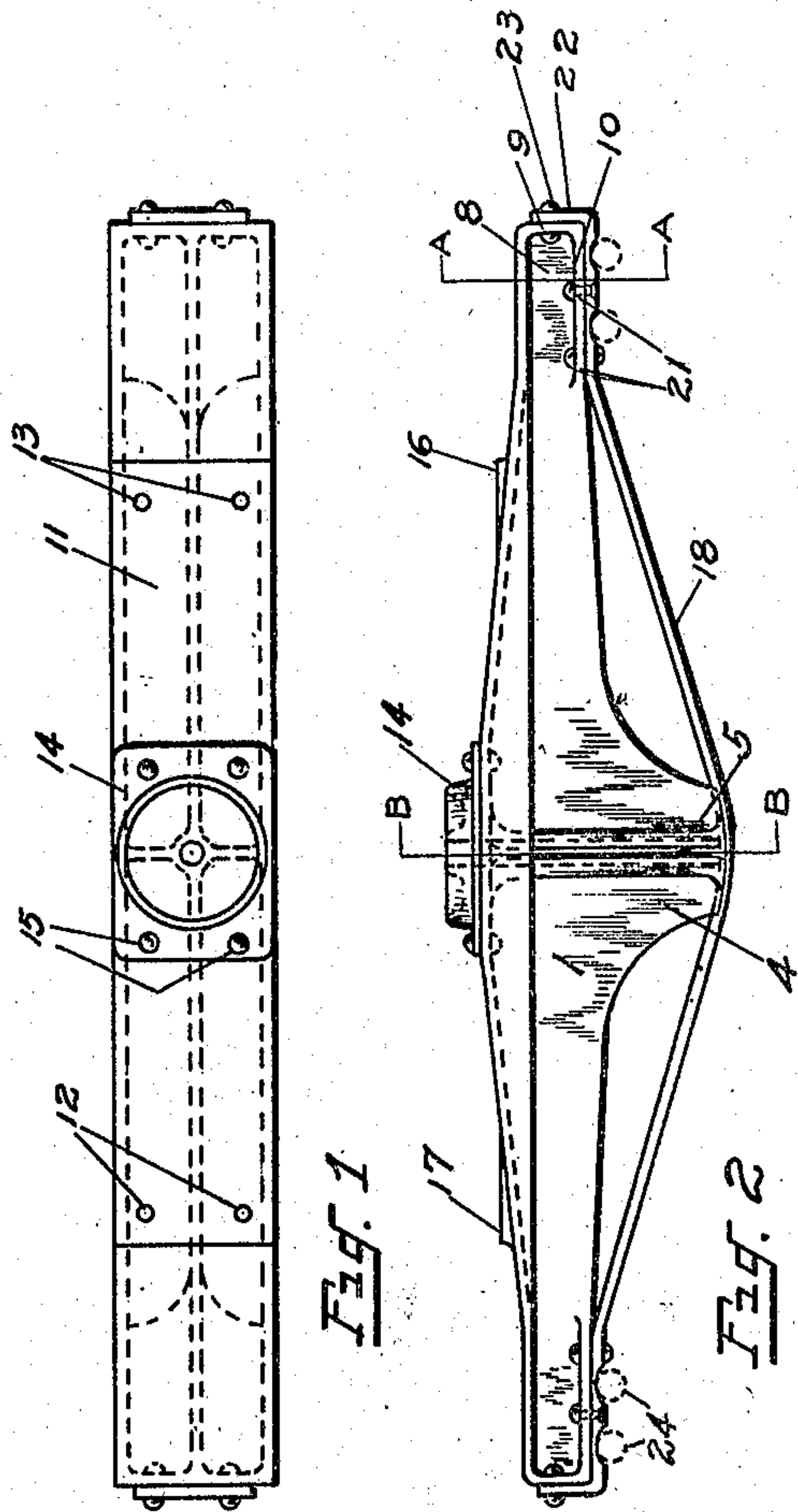


900,376.

Patented Oct. 6, 1908.



WITNESSES:

Hosack & Co.
A. Rager

INVENTOR.

FRANK L. IRWIN.

BY

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UNITED STATES PATENT OFFICE.

FRANK L. IRWIN, OF COLUMBUS, OHIO, ASSIGNOR TO THE RALSTON STEEL CAR COMPANY,
OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

CAR-BOLSTER.

No. 900,376.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed February 21, 1908. Serial No. 417,192.

To all whom it may concern:

Be it known that I, FRANK L. IRWIN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Bolsters, of which the following is a specification.

My invention relates to improvements in bolsters for cars, especially in cast bolsters having secured thereto a truss plate adjacent to its ends, the bolster being so formed as to have great strength in a compact and symmetrical form, and is cheaply constructed considering the quality of the bolster when finished.

It further consists in a cast bolster having the center plate and side bearings arranged thereon appropriately, either constructed of independent members secured to the bolster or being cast integral therewith.

In the accompanying drawings which are hereto attached and hereby made a part of this specification, Figure 1 is a plan view of the bolster; Fig. 2 is a side elevation thereof; Fig. 3 is a vertical transverse section along the line B—B of Fig. 2; Fig. 4 is a vertical transverse section along the line A—A of Fig. 2.

Referring to the drawings in which the same numeral indicates the same part throughout, 1 is the bolster cast with the side flanges 2 and 3 at the sides thereof, and the reinforcing portion 4, through which is formed the opening 5 for the insertion of the king bolt or pin. Adjacent the ends the outwardly extending flanges 2 and 3 cease and the upper faces 6 and 7 formed on the web 8 extend to the end of the bolster; at that point this upper face is carried downwardly as shown at 9 and at the lower side of the end it is bent horizontally as shown at 10, so that adjacent to its ends a cross section of the bolster has the appearance of an I-beam. The upper face 11 of the bolster formed of the flange portions 6 and 7 is provided as shown in Fig. 1 with the openings 12 and 13 therethrough, whereby the side bearings 16 and 17 may be secured to said bolster. The center plate 14 is adapted to be secured by bolts or rivets 15 upon the upper face 11 of the bolster. If preferred, the side bearings 16 and 17 may be cast integral with the bolster, although they are shown in Figs. 1 and 2 as being independent members secured thereon.

The bolster herein described rests at its ends upon the balls or rollers 24 upon the truck, and it may be properly described as the truck bolster, the body bolster being adapted to be mounted in the center plate 14. This truck bolster is strengthened by the provision of the truss plate 18, which is received between the down turned flanges 19 and 20 of the body of the bolster (Fig. 3), and held by said flanges against lateral displacement; the truss plate from this portion of the bolster inclines upwardly in both directions towards the ends of the bolster, and is secured to the flange portion 10 (Fig. 4) by means of bolts or rivets 21 inserted therethrough, and the end portion of said truss plate is bent upwardly at 22 to embrace and engage against the outer end of the bolster and is secured thereto by bolts or rivets shown at 23; the construction at the opposite end of the bolster is the same as that described. The truss plate, it is seen, serves to brace and strengthen the bolster construction and render the same very strong, and being formed wide it embraces the flange construction adjacent the ends of the bolster over a wide surface and gives sufficient support thereto. It is seen, that the bolster is formed heavy where the greatest strain is exerted thereon, and is tapered symmetrically out to the ends thereof where the wide flange portion is provided for the purpose of adding strength at its outer point. My bolster is compact and symmetrical in outline and very strong and sufficiently braced by the truss plate without adding greatly to its bulk.

What I claim is:

1. A bolster cast with a heavy central portion and tapering towards its extremities, lateral flanges formed upon its extremities, a truss plate positioned beneath the central portion of said bolster and extending to the outer faces of the extremities thereof and having flanged extensions thereon to engage the flanged extremities of said bolster.
2. A cast bolster tapering in both directions towards its ends from its center on its upper face, a lower reinforcing portion formed thereon, side bearings formed on the upper face of said bolster, a center plate secured to the upper face of said bolster, said bolster being formed with lateral flanges at its ends and adjacent thereto, and a truss plate positioned beneath the central portion of said bolster and extending in both direc-

tions to the outer faces of the ends of said
bolster, and having upwardly bent ends
formed thereon to engage the outer face of
the flanges formed on the ends of said bolster,
5 and means for securing said truss plate to
said bolster.

3. A cast bolster formed with a heavy cen-
tral web portion, lateral flanges thereon form-
ing the upper face thereof and extending
10 around the ends and along the lower sides
thereof, a truss plate positioned beneath the

central portion of said bolster and extending
to the ends thereof to overlap the outer faces
of the same, and means for securing said
truss to said flange portion of said bolster 15
both on its lower side and at the ends thereof.

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

FRANK L. IRWIN.

Witnesses:

HORACE S. KERR,
A. ROGER.