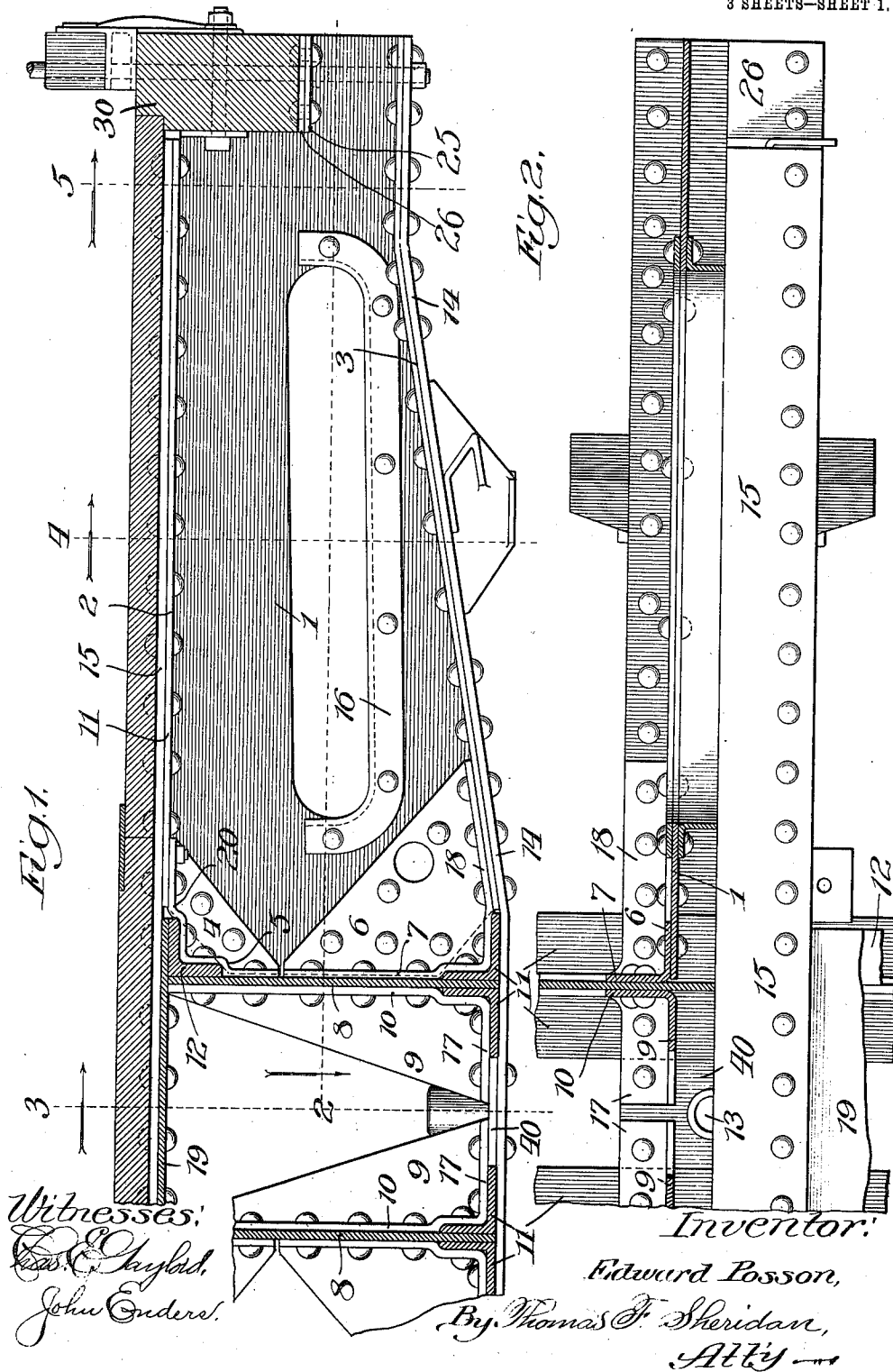


E. POSSON.
 UNDERFRAME FOR RAILWAY CARS.
 APPLICATION FILED MAR. 2, 1907.

1,037,049.

Patented Aug. 27, 1912.

3 SHEETS—SHEET 1.



Witnesses:
 Geo. C. Gayles,
 John Enders.

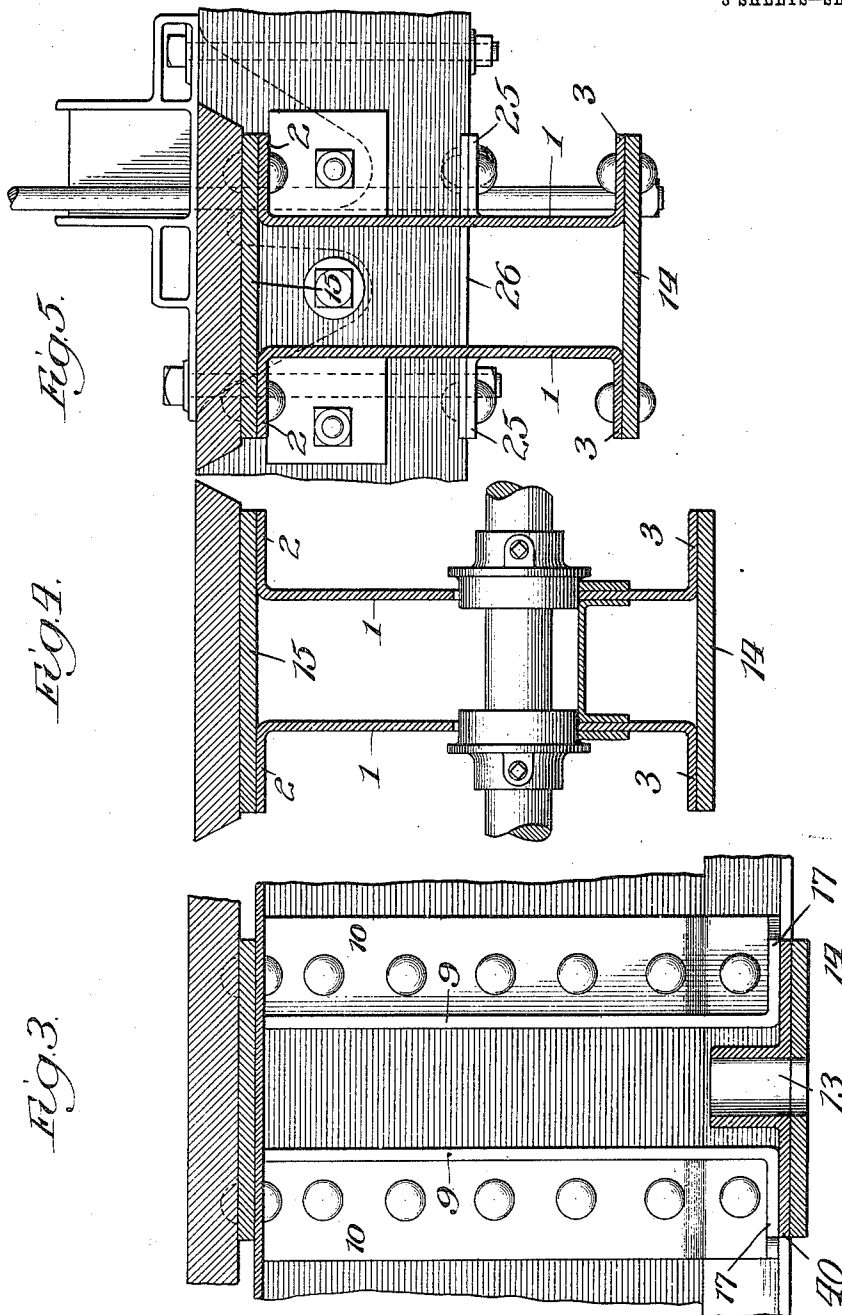
Inventor:
 Edward Posson,
 By Thomas F. Sheridan,
 Atty.

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Inventor:
Edward Posson,
 By *Thomas F. Sheridan,*
Att'y.

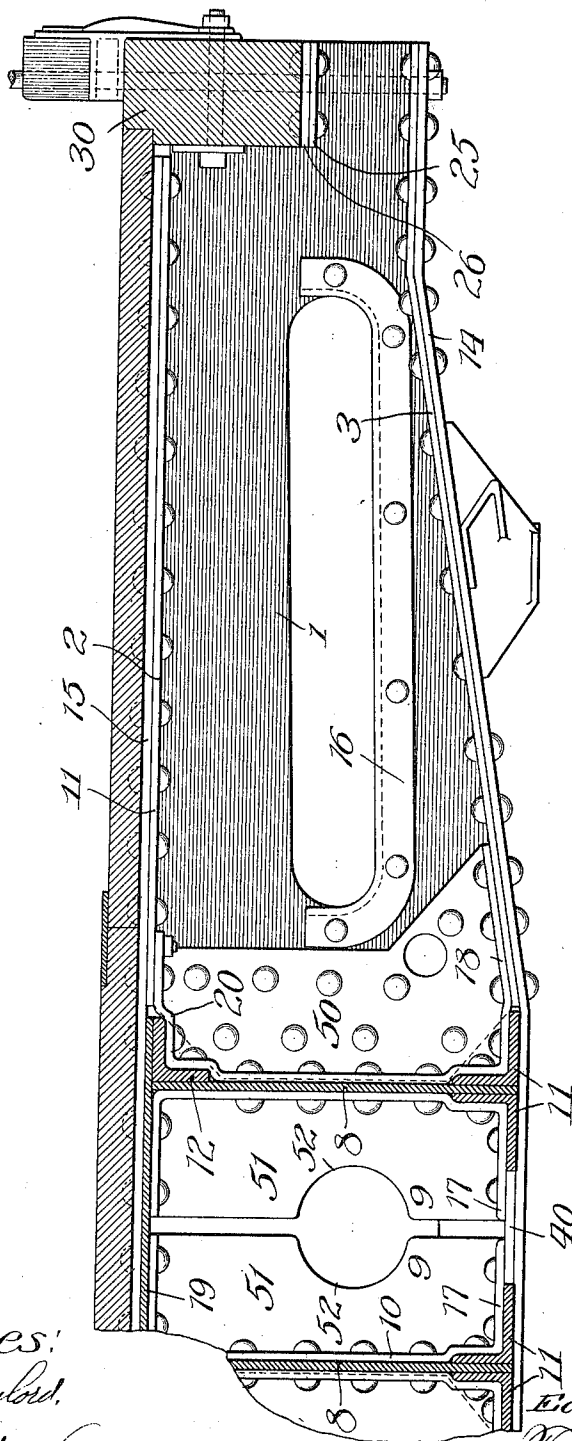
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3 SHEETS—SHEET 3.

Fig. 6.



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Ed. E. Claydon,
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UNITED STATES PATENT OFFICE.

EDWARD POSSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO NATIONAL DUMP CAR COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF MAINE.

UNDERFRAME FOR RAILWAY-CARS.

1,037,049.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Application filed March 2, 1907. Serial No. 360,150.

To all whom it may concern:

Be it known that I, EDWARD POSSON, 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 Underframes for Railway-Cars, of which the following is a specification.

The object of my invention is to provide a bolster or other transverse member for a car underframe of simple and economical construction and also having the materials so disposed as to properly resist the strains to which such parts are subjected.

While I have illustrated my invention as applied to a body bolster, it will be readily apparent that the structure is equally adapted for use in the other cross members forming part of a car underframe.

In the drawings—Figure 1 is a view of part of a bolster embodying my invention and showing the center sill in section. Fig. 2 is a plan view of the bolster shown in Fig. 1, half of the structure being shown in section. Fig. 3 is a sectional view on the line 3 of Fig. 1. Fig. 4 is a sectional view on the line 4 of Fig. 1. Fig. 5 is a sectional view on the line 5 of Fig. 1. Fig. 6 is a view of a modification.

In the structure to which I have shown my invention applied, the center sill of the car consists of vertical plates 8 having angles 11 secured to the lower edges thereof on both sides and angles 12 secured on the outside of the plates at the upper edge. The plates 8 are joined at the top by means of a horizontal plate 19 secured by rivets to the angles 12. The bolster consists of main webs 1 having integral flanges 2 and 3 upon the upper and lower edges thereof, respectively. The outer ends of the webs 1 are provided with right angular recesses for the side sills 30. Part of the metal cut away to form said recesses is bent outwardly, forming flanges 25, clearly shown in Fig. 5 of the drawing. Resting upon the flanges 25 is a plate 26 which forms the immediate support for the side sill.

All of the webs 1 are similar in structure, and a description of one of them will, therefore, be sufficient for all. As shown in dotted lines in Fig. 1 of the drawing, the web terminates at the center sill 8. The inner end of the web is reinforced by plates 4 and 6, one of which is secured at each corner

of the inner end. The plates 4 and 6 are provided with integral outturned flanges which form a continuation across the end of the web 1 of the integral flanges 2 and 3. These flanges upon the plates 4 and 6 are bent to conform to the angle irons 11 and 12 forming part of the center sill. The bolster is continued between the members 8 of the center sill in the form of filler plates 9 lying in the plane of the webs 1. The plates 9 have integral flanges, 10, 17, upon their vertical and horizontal edges, the vertical flanges lying adjacent to the members 8 of the center sill, and the horizontal flanges being attached to the lower part of the bolster structure.

In the particular embodiment of my invention illustrated the bolster takes the form of a box girder, the sides formed of the webs 1, above described, and the top and bottom consisting of straps 14 and 15 which are continuous throughout the width of the car. The upper and lower flanges of the web 1 are secured by rivets to the strap 15 and 14, respectively, and the end flange, which is formed on the plates 4 and 6, as above described, is secured by means of rivets to the longitudinal member 8 of the center sill and to the vertical flange upon the plate 9. As illustrated, the flange upon the plate 4 is carried around the upper edge thereof and secured to the angle 12, the flange 2 and strap 15, and the flange upon the plate 6 is similarly continued around its lower edge and riveted to the angle 11, flange 3 and strap 14.

The bearing 13, as shown in the drawing, is provided with a base plate 40 which extends beneath the flanges 17 on the lower edges of the plates 9. The flanges 17 are secured to the plate 40 and to the lower strap 14 by means of rivets. The plates 4 and 6 add the necessary strength to the web 1 at its inner end, and the flanges upon such plates afford means for securing the web to the center sill of the car, and to the part 9 of the bolster intermediate the longitudinal members of the center sill.

In the modification shown in Fig. 6, I have constructed the inner end flange of the web 1 upon a single reinforcing plate 50 instead of upon two separate reinforcing plates as in the form above described, and have also constructed the filler plates intermediate the webs of the center sill of a form

different from that illustrated in Fig. 1. These filler plates 51, as shown in Fig. 6, consist of two substantially rectangular plates flanged upon the upper and lower edges and upon the edge adjacent the web of the center sill. The fillers 51 fill up substantially all of the space between the webs of the center sill, although the space between them may be varied in dimensions from that illustrated. When the plates 51 are of such a size as to prevent access to the interior of the bolster they may be cut out, as shown at 52, for the purpose of leaving an opening through which access may be had to the bearing which, as usual, is located at the center of the bolster.

While I have described my invention in connection with a body bolster for a car, it is equally applicable to any of the cross supports forming part of the underframe and I have, therefore, claimed my invention broadly in connection with a transverse member, by which term I intend to designate either a body bolster or the intermediate cross members.

I claim:

1. A structural member, comprising a web, a reinforcing plate extending across one end of the web and secured thereto, integral flanges on the opposite sides of said web, and a flange at one end thereof formed on the reinforcing plate, the flange on said reinforcing plate overlapping and being secured to one of the flanges on the web.

2. A transverse member for a car, comprising a web, and integral flanges at the upper and lower edges thereof, one end of said web having diagonal reinforcing plates across the corners, said reinforcing plates having flanges formed thereon.

3. In a car, a transverse member com-

prising a web having integral flanges at the upper and lower edges thereof, a reinforcing member at one end of the web, said reinforcing member being provided with a flange extending transversely of the end of the web, said flange being continued so as to overlap one of the integral flanges of the web, a center sill, and means securing the center sill to the end flange.

4. In a car, a center sill comprising two longitudinal members, a bolster comprising parallel webs, the part of said webs between said longitudinal members consisting of plates flanged on two sides, and a bearing provided with a base, the flanges of said plates being secured to said longitudinal members and to said base.

5. In a transverse member for a car, a web, and diagonal stiffening plates at one end thereof, said stiffening plates being formed with flanges extending across the end of the web.

6. In a transverse member for a car, a web having integral flanges on its upper and lower edges, a stiffening plate secured across one end thereof, and a flange on said stiffening plate extending along the end of the web and overlapping one of the integral flanges on the web.

7. In a transverse member for a car, a web having integral flanges on its upper and lower edges, and stiffening plates secured across the end of said web and having flanges extending across the end of the web and overlapping the integral flanges on the web.

EDWARD POSSON.

Witnesses:

W. A. SCOTT,
CHARLES F. FITTS.