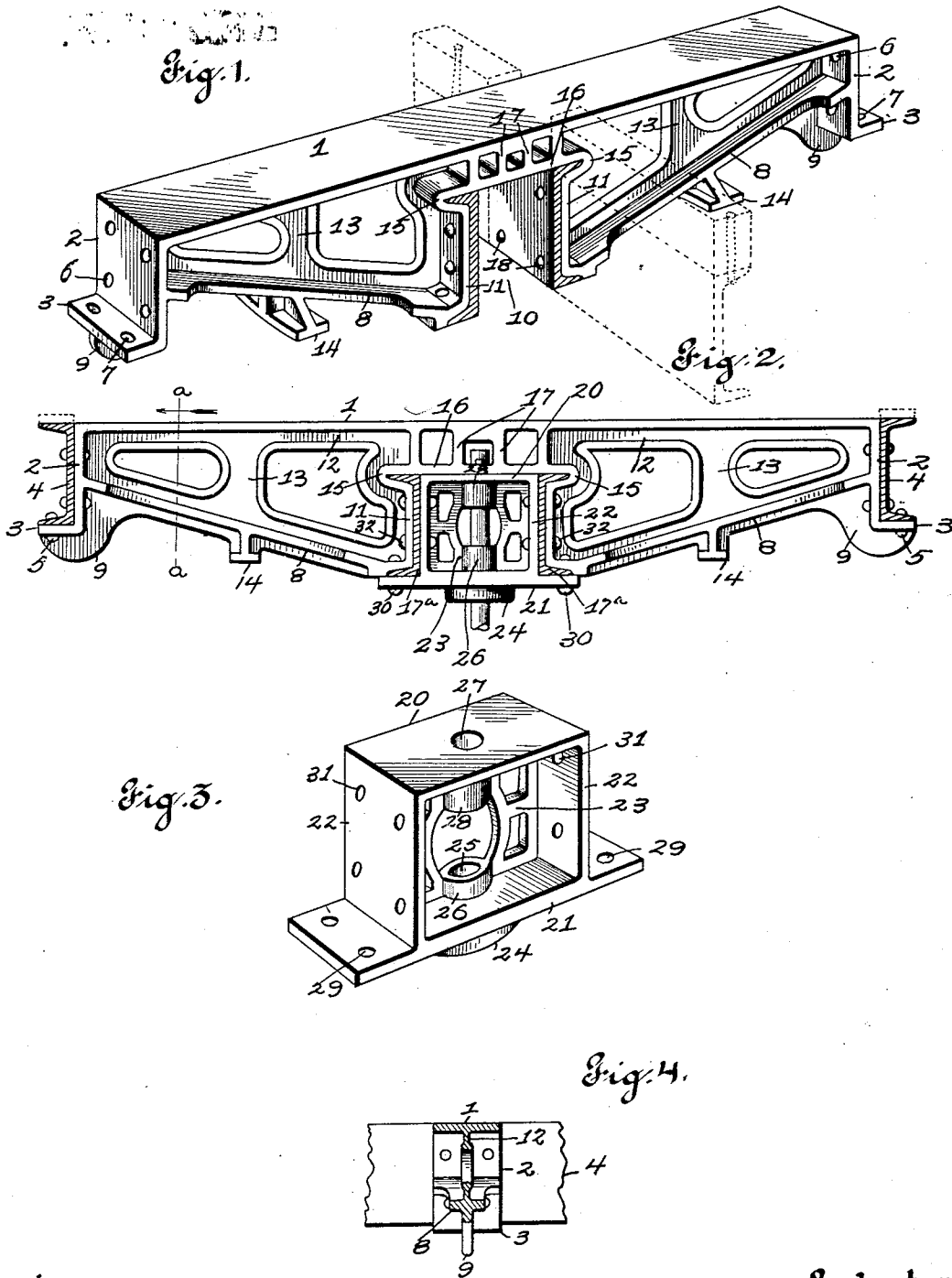


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C. S. SHALLENBERGER.
BODY BOLSTER FOR RAILWAY CARS.
APPLICATION FILED NOV. 14, 1901.

NO MODEL.



Witnesses
Alfred W. Eicher
John R. Rippey

Fig. 4.
Inventor
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by Higdon & Longan Attys.

UNITED STATES PATENT OFFICE.

REISSUED

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OF ONE-HALF TO E. S. MARSHALL, OF ST. LOUIS, MISSOURI.

BODY-BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 751,875, dated February 9, 1904.

Application filed November 14, 1901. Serial No. 82,314. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. SHALLENBERGER, of the city of Milwaukee, Milwaukee county, State of Wisconsin, have invented certain new and useful Improvements in Body-Bolsters for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to body-bolsters for railway-cars; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

One object of this invention is to provide a metallic car-bolster consisting of a bolster-body formed in one casting and provided with a recess in its under side and a combined center bearing and compression-block adapted to be located within said recess to completely fill the same, together with the draft members, which are also extended through the recess.

Another object is to provide a bolster with a recess to receive the central longitudinal members of the car in a position that they can support the draft appliances without any intermediate connections, and thereby receive all the strain directly and at the same time be in such a position relative to the side members that they can readily be brought to the same level by use of the usual nailing-strips.

Figure 1 is a perspective view of the body-bolster with the center plate and compression-block removed. Fig. 2 is a side elevation of the bolster with the center plate and compression-block in position in the recess, the draft members being shown in section. Fig. 3 is a perspective view of the center plate and compression-block. Fig. 4 is a cross-section of the bolster, taken on the line *a a* of Fig. 2, looking to the left.

The main body of the bolster consists of the top 1 in the form of a flat plate, the ends of which are extended downwardly, as indicated by 2, and provided with outward projections 3, whereby the side members 4 are supported. The said members, as shown, are preferably

in the form of channel-irons; but of course any other desired form may be used, and they may be held in position upon the ends of the bolster by the rivets or bolts 5, which are passed through openings formed in the said members and through the openings 6 and 7, formed in the vertical extensions 2 and the outward projection 3, respectively.

8 indicates the lower members, forming the main body of the bolster, which extend outwardly and upwardly, as shown, and their outer ends terminating at and being formed integral with the vertical extensions 2, with which they are reinforced by means of the integral webs 9, connecting the said members 8 and the lower ends of the extensions 2 and the projections 3. Between the inner ends of the bottom members 8 is a recess 10, and the said inner ends of these members are connected with the top 1 by the vertical sides 11, which are preferably of equal width with the top and are cast integral therewith and with the ends of the lower members 8. The under side of the top at each side of the recess so formed by the vertical members 11 is strengthened by an integral web or flange 12, which extends from the said members 11 to the extensions 2 and downwardly along the upper sides of the lower members 8. The upper and lower members are further braced by the vertical webs 13, which are directly above the side bearings 14, formed integral with the lower sides of the members 8. At a suitable distance below the top 1 the members 11 are curved outwardly, as indicated by 15, forming grooves or notches adapted to receive the flanges of channel-irons which may be used as the draft members. Directly above these notches the members 11 are connected by the integral cross-piece 16, which is reinforced by the webs 17, connecting the same with the top 1 of the body of the bolster.

As clearly shown in Fig. 2, the draft members 17^a are preferably in the form of channel-irons, having their flanges turned outwardly and the upper ends of the said flanges resting

within the notches formed below the cross-piece 16 in the side members 11. These draft members are then secured in position by bolts or other fastening devices passing there-
5 through and through the openings 18, formed in the side members 11.

By referring to Fig. 1 it will be seen that after the draft members are in position there is considerable space between the said members, which I fill by a combined center plate and compression-block formed in a single casting and consisting of the top 20 and the bottom 21, connected by the side members 22 and the reinforcing webs or flanges 23. The bearing 24 is formed integral with the under side of the bottom member 21. An opening 25 is formed through the bearing 24 and through the bottom 21, and around the said opening on the upper side of the bottom 21 is a reinforcing web or flange 26. An opening 27, similar to the opening 25, is formed through the top 20, and the said top is strengthened on its under side by means of an annular flange 28, which surrounds the opening 27.
25 The purpose of the said openings is to receive the king-bolt, which is shown in position in Fig. 2 and is held in position by means of a key or other suitable device, which will prevent its withdrawal or displacement.

As shown in Fig. 3, the ends of the bottom 21 of the plate and compression-block extend beyond the sides 22, and openings 29 are formed through these extensions and are adapted to receive the bolts 30 for supporting the center bearing and compression-block in position. Similar openings 31 are formed through the sides 22 to receive the bolts 32, which are passed through the said openings and through the openings formed in the draft members and the openings 18, above referred to. When the center plate and compression-block is thus secured in position it forms a complete connection between the ends of the bolster, thereby preventing any downward pressure of the ends which might occur were the central space 10 left unfilled. In addition to serving as the compression-block to strengthen the bolster and uphold the ends thereof it forms a center plate or bearing adapted to rest upon the center bearing of the car-bolster and to receive the king-bolt, whereby the body of the car is held on the truck. It will be understood that the side bearings 14 are located over side bearings of the car-bolster and will form the side supports to hold the car against tilting.

In Figs. 1 and 2 I have shown the nailing-strips in position upon the side members 4 and the central and draft members 17^a, raising
60 these several members to a common level to receive and support the car-floor. An important feature of this construction consists in the location of the central members, which, as

shown and above explained, are low enough to receive directly the entire strain of the draft and buffing operations. No intermediate connections are necessary to connect the draft appliances to these members nor are they any heavier or more bulky than the side members. If found desirable, that part of the bolster between the cross-piece 16 and the top 1 of the bolster can be reduced, so that the central members can be raised to nearly the same height as the side members 4. Thus it is seen that I lower in the bolster both the side and central members, bringing them all into substantially the same plane and connecting the draft appliances directly to the central members, thereby giving greater strength to these devices and omitting those connecting parts which are necessary in the bolsters of usual construction in which the longitudinal members of the car are carried upon the bolster above the draft appliances.

I claim—

1. A body-bolster, composed of a casting having a recess formed in its under side adapted to receive the draft members, and a combined center plate and compression-block adapted to be located within said recess between the draft members, substantially as specified.

2. A body-bolster for railway-cars, consisting of a casting having a recess in its under side adapted to receive the draft members, a combined center plate and compression-block located in said recess between the draft members, and means for holding the said center bearing and compression-block permanently in position within said recess, substantially as specified.

3. A body-bolster for railway-cars consisting of a casting having downward and outward extensions at its ends, and provided with a recess in its under side adapted to receive the draft members, a combined center bearing and compression-block located in said recess between the draft members, and means for holding the said center bearing and compression-block in position thereon.

4. A car-bolster for railway-cars, comprising a casting consisting of a top having downward and outward extensions integral with its ends, lower members having their outer ends formed integral with the said extensions, integral connections 11 connecting the inner ends of the lower members with the top, there being a recess or space between the said members adapted to receive the draft members, a combined center bearing and compression-block located within said recess or space and between the draft members, and means for holding the said center bearing and compression-block in position, substantially as specified.

5. A body-bolster for railway-cars, consist-

ing of a casting having a recess in its under
side adapted to receive the draft members, a
combined center plate and compression-block
located in said recess, and means for holding
5 the said center bearing and compression-block
permanently in position within said recess,
substantially as specified.

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

CHARLES S. SHALLENBERGER.

Witnesses:

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