C. A. LINDSTRÖM.

BODY BOLSTER FOR RAILWAY CARS.

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1,097,654.

Patented May 26, 1914.

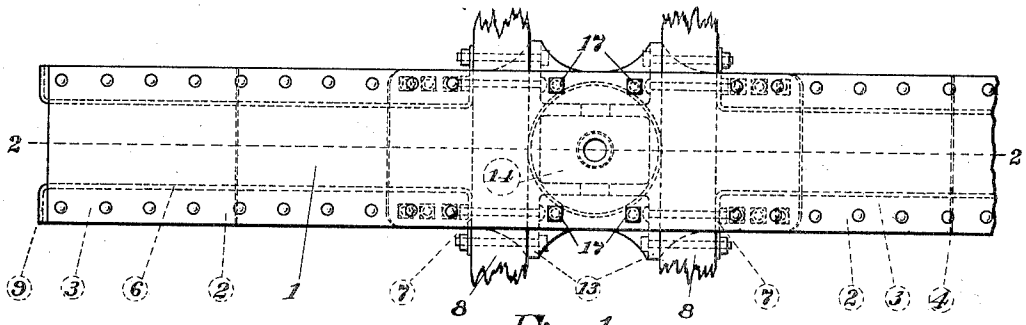


Fig. 1.

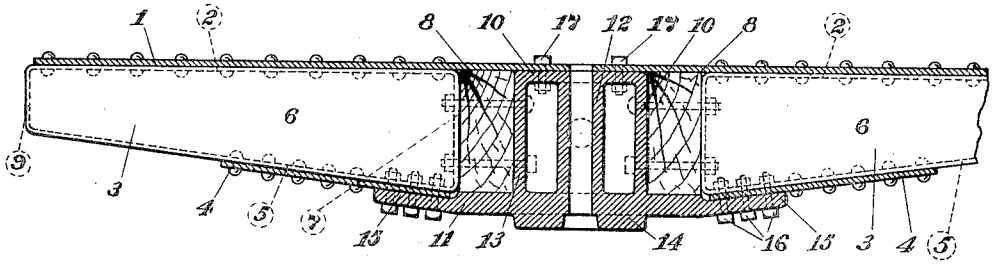


Fig. 2.

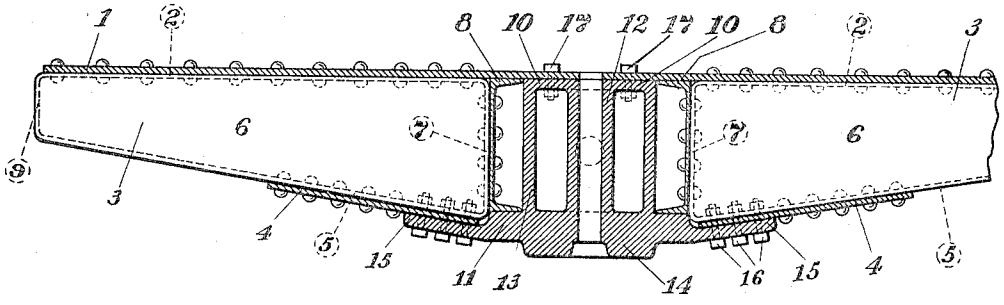


Fig. 3.

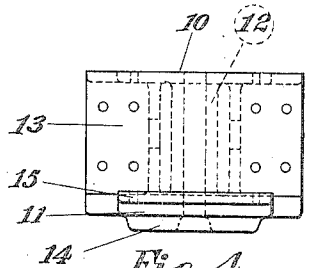


Fig. 4.

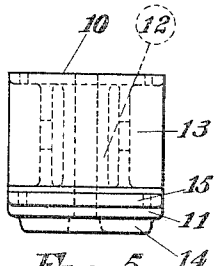


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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BODY-BOLSTER FOR RAILWAY-CARS.

1,097,654. Specification of Letters Patent. Patented May 26, 1914.

Application filed November 21, 1910. Serial No. 593,372.

To all whom it may concern:

Be it known that I, CHARLES A. LINDSTRÖM, a citizen of the United States, residing at No. 138 Stratford avenue, Pittsburgh, E. E., in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Body-Bolsters for Railway-Cars, of which the following is a description, reference being had to the accompanying drawings, in which like reference figures designate like parts, forming part of this specification.

This invention relates to body-bolsters for railway cars; and it consists in the novel construction hereinafter specified and claimed.

One object of this invention is to provide an improved body-bolster which will permit the removal and renewal of the draft-sills or center-sills without removing the bolster from the car, or in any way disturbing the members of the bolster which are secured to the underframe of the car.

Another object is to provide a metallic car-bolster 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-sills or center-sills which extend through the recess.

Another object is to provide a bolster with a recess to receive the central longitudinal members of the car in such a position that they can support the draft appliances without any intermediate connections, and thereby receive all the strain directly.

Figure 1, is a top plan view of my body bolster as applied to a car underframe having its central longitudinal members of wood; Fig. 2, is a sectional elevation thereof on line 2—2; Fig. 3, is a sectional elevation of Fig. 1, on line 2—2, rolled channel center longitudinal members being substituted for wooden ones; Fig. 4, is an end elevation of the combined center bearing and compression block, shown in Figs. 1 and 2, and Fig. 5, is an end elevation of the combined center bearing and compression block shown in Fig. 3.

The main body of the bolster consists of the top tie member, 1, in the form of a flat plate, tying together, through their upper flanges 2, the two metallic transoms or diaphragms 3, to which it is secured.

4 indicates the lower members, forming the main body of the bolster, which extend outwardly and upwardly as shown, and are secured to the lower flanges, 5 of the metallic transoms or diaphragms 3.

Between the inner ends of the transoms or diaphragms 3, is a recess and the said inner ends of these members are connected with the tie member 1 by means of the web plates 6, and flanges 2, of said transom or diaphragms, 3. The inner ends of the members 3, are provided with flanges 7 for connection to the center sills 8, and the outer ends thereof are provided with flanges 9, for connection to the side members of the car underframe, not shown in the drawings, but which may be of any suitable form.

As clearly shown in Figs. 1 and 2, the draft sills or center sills 8 are preferably formed of wood, although they may be formed of channel members as shown in Fig. 3, or of any other suitable section.

By referring to Figs. 1 and 2, it will be seen that after the longitudinal members 8, are in position, there is a considerable space between said members, which I fill by a combined center plate and compression block formed as a single casting and consisting of the top 10 and the bottom 11, connected by the annular member 12 forming an opening for the king bolt, and flanges 13. The center bearing 14, is formed integral with the under-side of the bottom member 11. The bottom member 11, is extended and recessed at its ends at 15, in such a manner that they may be secured by suitable means 16, to the lower members 4, and to the lower flanges 5, of the transoms or diaphragms 3. The top 10 of the combined center plate and compression block is also secured by suitable means 17 to the top tie member 1. The longitudinal members 8 are secured in position by bolts or other suitable means passing through the flanges 7 of members 3, the flanges 13 of the combined center plate and compression block, and also the said members 8; flanges 13 being extended to a sufficient extent, as shown in Fig. 4, to admit of the insertion of a sufficient number of bolts or other securing means. When the combined center plate and compression-block is thus secured in position it forms a connection between the ends of the bolster, thereby preventing any downward tendency of the ends, which might occur were the central space

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 truck bolster and to receive the king bolt, whereby the body of the car is held on the truck.

In Fig. 3 is shown a modification of my invention, in which channel beams are substituted for the wooden beams shown in Figs. 1 and 2. In this modification the vertical webs of the channel beams are secured directly to the flanges 7 of the members 3.

When it is necessary to remove or renew the longitudinal members 8, they can be taken out by simply removing the securing means 7, 16, and 17. The combined center plate and compression block also the longitudinal members 8 can then be lowered and removed. New longitudinal members can then be inserted in the recess, and the combined center plate and compression block and securing means replaced, without having to disturb any of the other component members of the body-bolster.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:—

1. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of said center sills, a tension plate secured to the upper flanges of the transoms and passing across the center sills, a center bearing member having a projection extending upwardly between the center sills to the tension member and secured thereto.

2. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of said center sills, a tension plate secured to the upper flanges of the transoms, a center bearing member having a projection extending upwardly between the center sills to the tension member and secured thereto, integral flanges extending from said center bearing member, compression members interposed between the lower flanges of the transoms and flanges of the center bearing member, and means for securing together the lower flanges of the transoms, compression member and integral flanges of the center bearing member.

3. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of the center sills, a tension member connecting the upper flanges of said transoms, a center bearing member having a projection extending upwardly to the tension member and secured thereto, and filling the space between the center sills, and means for securing together the end flanges of the transoms, the center sills, and the upwardly extending projection of the center bearing member.

4. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of the center sills, a tension plate secured to the upper flanges of the transoms and passing across the center sills, a removable combined compression block and center plate having a portion extending upwardly to, and contacting with, said tension plate and secured thereto, and filling the space between the center sills, and integral flanges on the lower portion of said combined compression block and center plate, adapted to be secured to the lower flanges of the transoms.

5. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of said center sills and secured thereto, a tension plate secured to the upper flanges of said transoms and passing across the center sills, a removable combined compression block and center plate having a portion extending upwardly to, and contacting with, said tension plate and secured thereto, and filling the space between the center sills, and integral flanges extending from the lower portion of said combined compression block and center plate, adapted to be secured to the lower flanges of the transoms.

6. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of the center sills, a tension plate secured to the upper flanges of the transoms and extending across the center sills, a removable combined compression block and center bearing having a portion extending upwardly to, and contacting with, the tension plate between the sills, and secured to the tension plate, means for securing together the end flanges of the transoms, the center sills and the sides of the combined compression block and center bearing, said compression member filling the space between the center sills, integral flanges extending from the lower portion of said combined compression block and center bearing member, said flanges being secured to the lower flanges of the transoms.

7. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of the center sills, a tension plate secured to the upper flanges of the transoms and passing across the center sills, a removable combined compression block and center bearing member having a portion extending upwardly to, and contacting with said tension plate and secured thereto and filling the space between the center sills, compression members secured

to the lower flanges of said transoms, and integral flanges extending from the lower portion of said combined compression block and center plate, and means for securing together the lower flanges of the transoms, the compression member and the integral flanges of the combined compression block and center bearing member.

8. In a body bolster, the combination with the center sills, of a pair of flanged transoms disposed back to back and spaced apart on opposite sides of the center sills, a tension plate secured to the upper flanges of the transoms and passing across the center sills, a center bearing member having a projection extending upwardly between the center sills to the tension member and secured thereto, and means for securing said transoms, center sills and center bearing member together.

9. In a body bolster, the combination with the center sills, of transoms disposed back to back on opposite sides of the center sills, a tension plate extending from end to end of the transoms and secured thereto, a center bearing member having a projection extending upwardly between the center sills to the tension member and secured thereto.

10. In a body bolster, the combination with the center sills, of a pair of transoms disposed back to back on opposite sides of said center sills, a tension plate secured to the upper flanges of the transoms and passing across the center sills, and a center bearing member extending upwardly between the center sills to the tension member and secured thereto.

11. In a body bolster, the combination with the center sills, of transoms disposed back to back on opposite sides of said center sills, a tension plate secured to the upper flanges of the transoms, a center bearing member extending upwardly between the center sills to the tension member and secured thereto, flanges extending from said center bearing member, compression members interposed between the lower flanges of the transoms and flanges of the center bearing member, and means for securing together the lower flanges of the transoms, compression member and flanges of the center bearing member.

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

CHARLES A. LINDSTRÖM.

Witnesses:

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