March 27, 1928. 1,664,224

C. C. PINCKNEY

RAILWAY CAR BOLSTER

Filed April 2, 1927

Fig. 1.

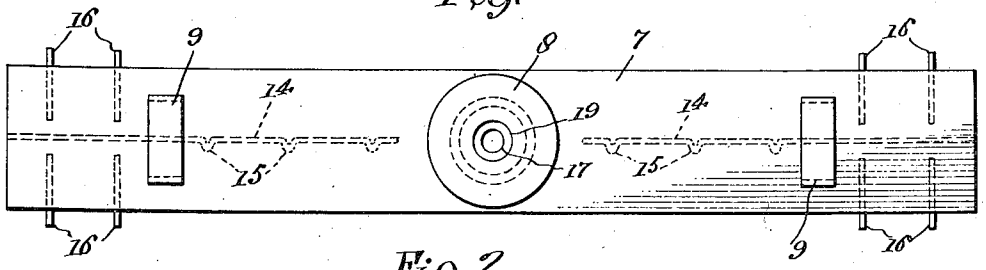


Fig. 2.

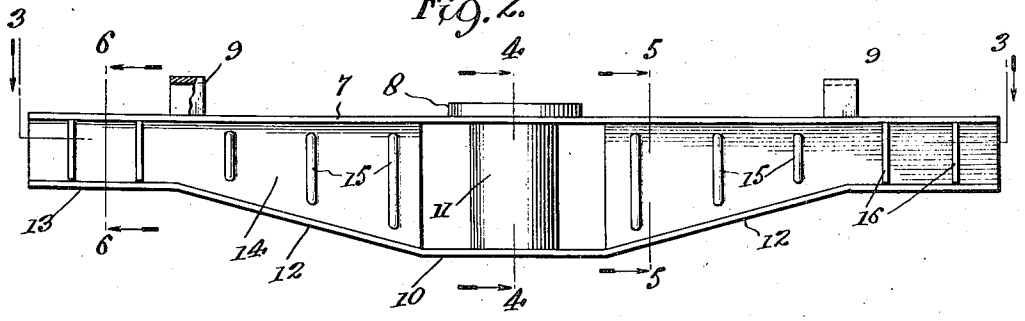


Fig. 3.

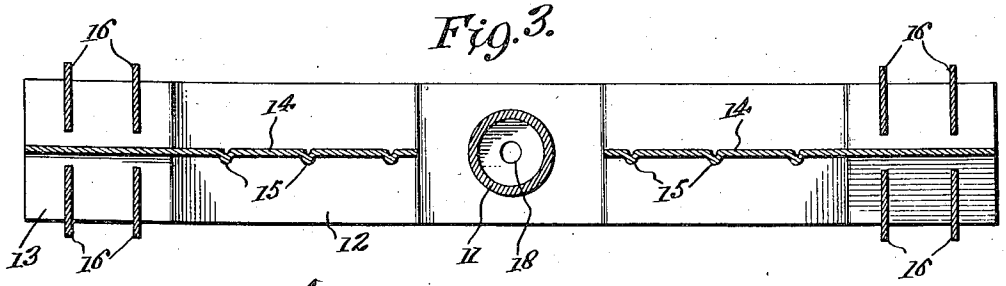


Fig. 4.

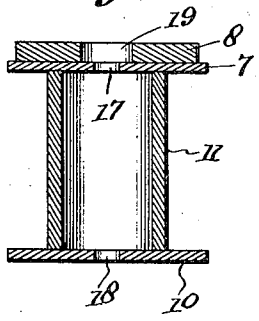


Fig. 5.

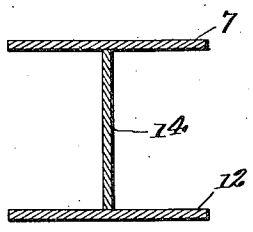
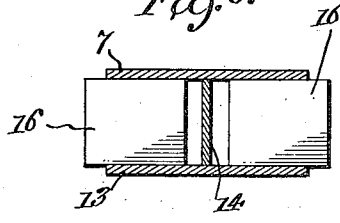


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES COTESWORTH PINCKNEY, OF BIRMINGHAM, ALABAMA.

RAILWAY-CAR BOLSTER.

Application filed April 2, 1927. Serial No. 180,486.

The present invention relates to improvements in railway car bolsters, and has for an object to provide a bolster in which the parts are welded rather than riveted to secure advantages of strength and serviceability not possible with the old riveted bolster.

Another object of the invention is to provide a bolster of maximum strength, having a minimum of material and in which the web is corrugated or fluted, thereby stiffening the web without increasing the thickness of the material; which type of web it has been impracticable to use in fabricated bolsters.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 is a top pian view of an improved bolster constructed according to the present invention;

Figure 2 is a front elevation of the same;

Figure 3 is a horizontal section taken on the line 3—3 in Figure 2;

Figure 4 is a central vertical section taken along the line 4—4 in Figure 2;

Figure 5 is a similar section taken on the line 5—5 in Figure 2; and

Figure 6 is a transverse section taken on the line 6—6 also in Figure 2.

Referring more particularly to the drawings, 7 designates the upper face plate to the upper surface of which is attached the center plate 8, and the side bearers 9. The upper face plate 7 and the central lowermost part 10 of the lower face plate are joined centrally by a pipe section or bushing 11. The intermediate diagonal sections 12 of the lower face plate and the end higher sections 13 thereof are joined to the lower edges of web plates 14. These web plates are corrugated or fluted according to any suitable construction, one instance of which is shown in the drawings at 15. Near the ends of the bolster are attached the guiding ribs 16 for the truck members (not shown). These guiding ribs are provided in spaced pairs, one pair being located to one side of each end of the webs 14. These guiding ribs are preferably joined at their upper and lower edges to the upper and lower face plates.

The parts are all secured together by autogenous welding in place of riveting. The pipe or bushing 11 may be a cast or rolled member, welded, as shown in Figure 4, to the adjacent faces of the upper and lower face plates. This pipe or bushing is hollow, yet strong and imparts rigidity to the central portion of the bolster, while conserving a great amount of material and also admitting of a considerable saving of material of the webs, which, as indicated, are spaced from the pipe member 11, the fluted web providing for stiffening this member itself and the bolster generally without increasing the thickness of the web. The wing parts 13 of the bolster rest on the springs and have such attachments as will give strength or serve other useful purpose, the guiding ribs 16 being one instance of a desirable attachment.

As shown in Figure 5, the bolster is of substantially H-section. As shown in Figure 6, the guide ribs 16 are preferably spaced from the webs 14. These guiding ribs further reinforce the end construction of the bolster.

As shown in Figure 4, the openings 17 and 18 through the upper and lower face plates are in line for the pin, and these openings are preferably smaller in diameter than the pipe section 11, and also than the diameter of the opening 19 in the central plate 8. The diameter of this opening 19 is also preferably smaller than the internal diameter of the pipe section 11. Thereby a mass of metal in the plate 8 exists to both inner and outer sides of the extended pipe section 11, and the upper face plate 7 is reinforced over a large surface at a point opposite where the upper edge of the pipe section 11 engages same.

It will be obvious that many changes in the construction, combination and arrangement of parts could be made, which could be used without departing from the spirit of my invention, and I do not mean to limit the invention to such details, except as particularly pointed out in the claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:—

1. An electric welded railway car bolster comprising upper and lower face plates, a pipe section welded centrally to said upper and lower face plates, and corrugated webs extending on opposite sides of said pipe section and welded to the upper and lower face plates.

2. A welded railway car bolster compris-

ing upper and lower face plates, a pipe section welded centrally to the upper and lower face plates, webs welded to the upper and lower face plates and extending in spaced relation and on opposite sides of said pipe section and forming with the face plates a bolster of substantially H-section.

3. A welded railway car bolster comprising upper and lower face plates, corrugated webs extending longitudinally thereof and welded to the adjacent faces of the upper and lower face plates along a substantially longitudinal median line, said webs being spaced apart centrally of the bloster, and a cylindrical bushing extending between the face plates centrally of the bolster and welded to the adjacent faces of said face plates, said bushing being spaced from the joining edges of the webs.

4. A welded railway car bolster comprising upper and lower face plates, fluted webs welded therebetween, a hollow pipe section welded centrally between said face plates, and a center plate welded to the upper surface of the upper face plate concentrically above said pipe section.

5. A welded railway car bolster comprising upper and lower face plates, longitudinal central webs welded therebetween, a central hollow column welded to the face plates, a center plate welded to the upper surface of the upper face plate, and side bearers also welded to the upper surface of said upper face plate.

6. A welded railway car bolster comprising upper and lower face plates, webs welded therebetween, a hollow post welded between said face plates, a center plate welded to the upper face plate, and guiding ribs welded to the outer portions of said upper and lower face plates.

7. A welded railway car bolster comprising upper and lower face plates, the lower face plate having a central lowermost portion, intermediate diagonal portions and upper outer portions, said upper and lower face plates having registering openings, fluted webs welded to the face plates, a hollow pillar welded centrally to the face plates concentric with said openings and having an internal diameter greater than the diameter of said openings, and a center plate welded to the upper face plate and having an opening greater in diameter than said face plate openings, but of less diameter than the internal diameter of said hollow pillar.

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