2,711,700

LADING STRAP ANCHORS

Harry Blumberg, Cleveland, Ohio, assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Application May 19, 1951, Serial No. 227,183

11 Claims. (Cl. 105—369)

This invention relates to lading strap anchors and is directed more particularly to such anchors utilized with the posts of the side walls of railway freight cars.

It is an object of this invention to provide lading strap anchors adapted to be secured to the posts of the side walls of railway freight cars so as to reinforce said posts.

A further object is to provide lading strap anchors having a construction which lends itself to sub-assembly and securement as a unit to the posts of the side walls of railway freight cars.

A further object is to provide lading strap anchors for the posts of the side walls of railway freight cars so constructed as to function as guides in the securement of lading straps thereto.

A further object is to provide lading strap anchors for the posts of the side walls of railway freight cars so constructed as to protect the adjacent portions of the lining of the side walls from damage by the lading straps.

A further object is to provide metallic posts for the side walls of railway freight cars which shall embody lading strap anchors.

A further object is to provide metallic posts for the side walls of railway freight cars which shall embody a plurality of spaced U-shaped anchors having legs extending through and welded to the posts or to members secured to the posts whereby the metal of the posts or members becomes effective to resist the pull on the anchors from lading straps secured thereto.

Other objects of the invention will become clear as the description thereof proceeds.

In the drawings forming part of this specification:

Fig. 1 is a vertical longitudinal cross section of a railway freight car as seen from the interior thereof showing a portion of one side wall of the car including a portion of the door opening and one door post and the adjacent intermediate post which embody one form of the instant invention.

Fig. 2 is a horizontal section taken on line 2--2 of Fig. 1.

Figs. 3, 4, 5, 6 and 7 are horizontal sections similar to Fig. 2 showing different embodiments of the instant invention.

Referring to the drawings and particularly to Figs. 1 and 2 thereof which illustrate one embodiment of the instant invention, there is shown a portion of a side wall 10 of a railway freight car which includes the usual Z-shaped side plate 11 and angle side sill 12. As is customary a roof, indicated generally by the reference numeral 13, is secured to the side plate 11 as by means of rivets 14, and a floor 15 supported upon the horizontal leg 16 of the side sill. The side wall 10 also embodies a substantially Z-shaped lading door post 17 and an intermediate post 18 extending between and secured as by means of rivets to the side plate and side sill and to which furring strips 19 and 20 and 21 and 22 are secured as by means of bolts 23 and 24. Metallic sheathing 25 is secured to the door post 17 as by means of rivets 26 and to the intermediate post 18 as by means of rivets 27.

The side wall 10 also incorporates a wooden lining 28 formed of a plurality of boards 29 which as is more clearly shown in Fig. 2 of the drawings terminate short of the intermediate and door posts.

While only a portion of the side wall including one door post and one intermediate post has been illustrated, it will be clear that the freight car embodies two side walls and that each of the side walls is substantially similar in construction including two door posts which define the width of the door opening and a plurality of intermediate posts extending from the door posts to the end of the car.

Referring particularly to Fig. 2 of the drawings it will be seen that the door post 17 embodies a web 30 extending longitudinally of the car, an outwardly extending flange 31 and an inwardly extending flange 32. The intermediate post 18 embodies a web 33 extending transversely of the side wall, an outer longitudinally extending flange 34 and an inner flange 35. In order that the door post 17 may in accordance with the instant invention provide anchor means to which lading straps may be fastened so as to prevent shifting of lading in the car, an angle member 36 which is preferably co-extensive with the door post is secured to the inwardly extending transverse flange 32 as by means of welding. The portion of the flange 37 by means of which angle member 36 is secured to the door post 17, this angle member includes a substantially longitudinally extending flange 38. The flange 38 is bent inwardly to provide a portion 39 which lies at an obtuse angle to the remainder of the flange and which overlaps the adjacent edge of the lining 28.

The portion 39 of the flange 38 carries a plurality of spaced U-shaped members 40 each of which has a height 41 disposed vertically in spaced relationship to the portion 39 of flange 38 and legs 42 and 43 which extend through openings formed in the portion 39. The U-shaped members preferably lie at right angles to the portion 39 of the flange 38 and the legs are welded to the underside of this portion. As is indicated in Fig. 1 of the drawings the U-shaped members extend in spaced relationship preferably from top to bottom of the angle member 36.

By reason of the construction immediately above described it will be apparent that the angle member 36 and the anchor members 40 may be produced as a sub-assembly and subsequently welded to the door post as a unit. The bent portion 39 of the flange 38 serves not only as the means to which the anchor members 40 are secured but by its construction serves as well as a guide means for lading straps in the securement thereof to the anchor members and as well as a protective means for the adjacent edge of the wooden lining so that the lading straps will not rub against and wear away this edge. In addition the portion of the lining lying on the opposite side of the door post from the angle 36 is cut away at an angle as shown at 44 in the neighborhood of the anchor members 40 so as to provide a guide for the lading straps. By the described construction, moreover, the material of the portion 39 of the flange 38 is utilized to resist stresses applied to the anchor members 40 by the lading straps.

Fig. 2 of the drawings also illustrates the application of the instant invention to an intermediate post of the side wall of the freight car. It will be understood, of course, that similar application may be made to all of the intermediate posts of the side walls and that applications similar to that described hereinabove will usually be made to all of the door posts. In the application of the anchor members 40 to the intermediate posts 38 the inner flange 35 is bent inwardly to provide a portion 45 which lies at an obtuse angle to the remainder of the flange and which overlaps the adjacent edge of the
2,711,700

2. In a railway freight car having a side wall embodying a side plate and a side sill, a post extending between and secured to said side plate and said side sill, means extending lengthwise of and secured to said post, vertically spaced U-shaped anchors for lading straps carried by said means, each of said anchors having a bight disposed in spaced relationship to said means and post and legs extending through said means, and means securing said legs to said first mentioned means.

3. In a railway freight car having a side wall embodying a side plate, a side sill and an inner lining, a post extending between and secured to said side plate and said side sill, said lining terminating adjacent to said post, a member extending lengthwise of and secured to said post, said member having a flange disposed at an angle to said post, vertically spaced U-shaped anchors for lading straps carried by said member, each of said anchors having a bight spaced from said flange and post and means extending through said flange, and means securing said legs to said flange, said post having a flange overlapping the adjacent edge of said lining.

4. In a railway freight car having a side wall embodying a side plate and a side sill, a post extending between and secured to said side plate and said side sill, means extending lengthwise of and secured to said post, a member having a flange disposed at an angle to said post, vertically spaced U-shaped anchors for lading straps carried by said member, each of said anchors having a bight spaced from said flange and post and means extending through said flange, and means securing said legs to said flange, said post having a flange adjacent to said anchors and lying at an acute angle to said wall, said post flange being adapted to guide lading straps for engaging with said anchors.

5. In a railway freight car having a side wall embodying a side plate, a side sill and an inner lining, a post extending between and secured to said side plate and said side sill, said lining terminating adjacent to and on opposite sides of said post, a member extending lengthwise of and secured to said post, a member having a flange disposed at an angle to said post, vertically spaced U-shaped anchors for lading straps carried by said member, each of said anchors having a bight spaced from said flange and said post and legs extending through said flange, and means securing said legs to said flange, said post having a flange extending oppositely from said flange on said member, said flanges overlapping the adjacent edges of said flange.

6. In a railway freight car having a side wall embodying a side plate and a side sill, a post extending between...
and secured to said side plate and side sill, a member extending lengthwise of and secured to said post, said member having a flange disposed at an angle to said post, vertically spaced U-shaped anchors for lading straps carried by said member, each of said anchors having a bight spaced from said flange and post and legs extending through said flange, and means securing said legs to said flange, said post having a flange adjacent to said anchors and lying at an acute angle to said wall, said flange on said member extending beyond said anchors oppositely from said post flange and at an acute angle to said wall, said flanges being adapted to guide lading straps for engagement with said anchors.

7. In a railway freight car having a side wall embodying a side plate and a side sill, a plurality of posts extending between and secured to said side plate and side sill, a member extending lengthwise of and secured to each of said posts, each of said members having a flange disposed at an angle to said posts, each of said posts having a flange extending oppositely from said flange on said member, vertically spaced U-shaped anchors for lading straps carried by one of said flanges, each of said anchors having a bight spaced from said flanges and legs extending through said one flange, and means securing said legs to said one flange.

9. A metallic post for the side walls of railway freight cars, said post comprising a formation substantially Y-shaped in cross section and embodying diverging flanges, vertically spaced U-shaped anchors for lading straps secured to one of said flanges, each of said anchors having a bight spaced from said flanges and legs extending through said one flange, means securing said legs to said one flange, and vertically spaced plates extending between and secured to said flanges.

10. A post for the side walls of railway freight cars, said post comprising a member having a web and oppositely extending flanges, one of said flanges being bent so as to lie at an obtuse angle to the remainder of said flange, vertically spaced U-shaped anchors carried by said post, each of said anchors having a bight spaced from said one flange and legs extending through said one flange, and means securing said legs to said latter flange.

11. A metallic post for the side walls of railway freight cars, said post comprising a formation substantially Y-shaped in cross section and embodying diverging flanges, vertically spaced U-shaped anchors for lading straps carried by one of said flanges, each of said anchors having legs and a bight spaced from said flanges, and means securing said legs to said one flange.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Issuer</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,577,504</td>
<td>Logmann et al</td>
<td>July 24, 1951</td>
</tr>
<tr>
<td>2,583,257</td>
<td>Dietrichson</td>
<td>Jan. 22, 1952</td>
</tr>
<tr>
<td>2,711,700</td>
<td>Barber</td>
<td>Dec. 4, 1951</td>
</tr>
</tbody>
</table>