

Oct. 14, 1952

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2,613,614

ANCHOR FOR HIGH-TENSION LOADING BANDS FOR GONDOLA CARS

Filed Jan. 25, 1951

2 SHEETS—SHEET 1

Fig. 1.

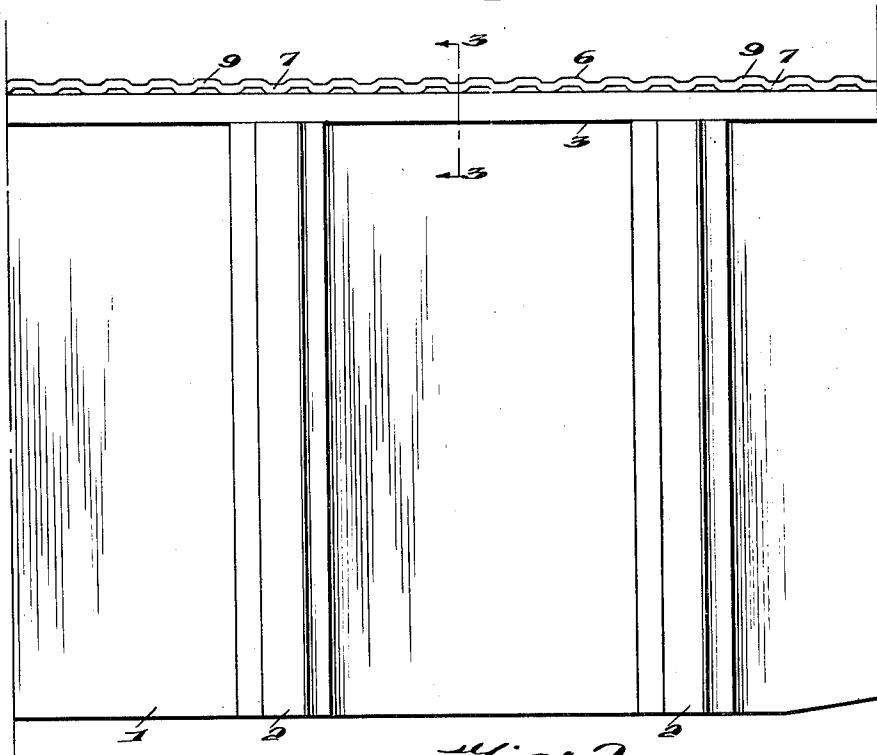


Fig. 2.

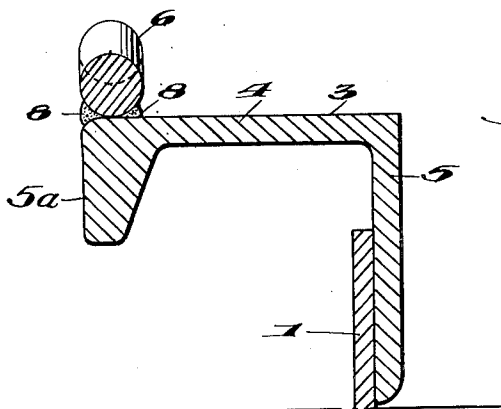
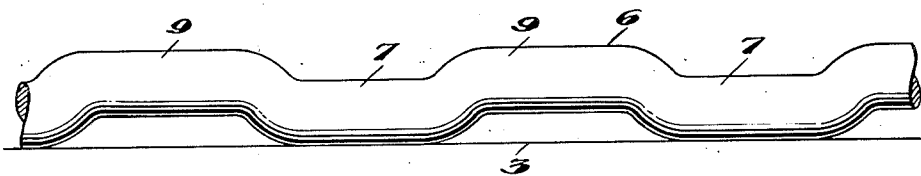


Fig. 3.

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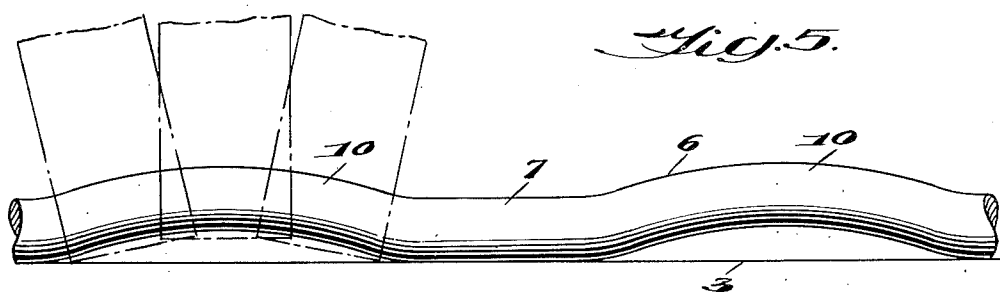
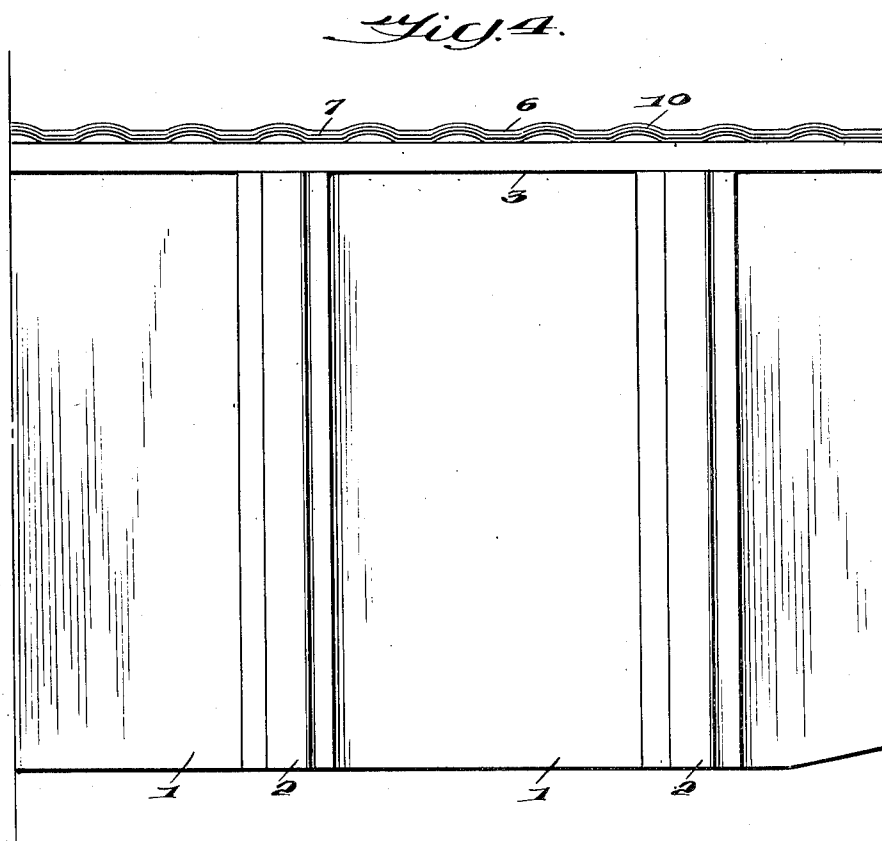
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2 SHEETS--SHEET 2



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2,613,614

ANCHOR FOR HIGH-TENSION LOADING
BANDS FOR GONDOLA CARS

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Continuation of application Serial No. 121,780,
October 17, 1949. This application January
25, 1951, Serial No. 207,810

3 Claims. (Cl. 105-369)

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My invention relates to anchors for high tension loading bands particularly adapted for use in connection with gondola type railway cars, the loading bands serving to hold the lading stationary within the car.

The principal object of the invention, generally stated, is to provide an anchor bar which may be readily applied to the flanges at the tops of the side sheets and which extend longitudinally of the car, said bars being so arranged and formed as to provide anchor band-receiving portions spaced by portions of the bar which are secured to the flange members of the side sheets.

One of the features of the invention consists in providing on the flanged surface of the structural member of a gondola car a rod or bar extending longitudinally of the car and having portions spaced upwardly from the associated flanged member, said portions being adapted to receive a load-retaining band.

Another object of the invention consists in providing a flanged portion adjacent the upper edge of a gondola car side wall with a reinforcing member extending longitudinally of the car, said reinforcing member being provided at spaced intervals with load-retaining band portions.

Still another feature of the invention consists in providing on the coping angle of a gondola car a continuous reinforcing bar, said bar being connected to the coping angle at spaced intervals so as to provide therebetween seats for receiving a load-retaining band or bands.

Other features of the invention, residing in advantageous forms, combinations and relations of parts, will appear hereinafter and be pointed out in the claims.

In the drawings,

Figure 1 is a fragmentary side elevational view of a railway gondola car to which a loading band anchor bar is secured.

Figure 2 is an enlarged fragmentary view of one form of a loading band anchor.

Figure 3 is a sectional view taken along the lines 3-3 of Figure 1.

Figure 4 is a view similar to Figure 1, showing a modified form of loading band anchor bar; and

Figure 5 is similar to Figure 2 showing the modified form of loading band anchor bar, the load-retaining bands being shown in dot-and-dash lines.

Referring more particularly to Figures 1 to 3, inclusive, a conventional gondola car side wall is illustrated showing the side sheets 1 and the side stakes 2. Secured to the upper edge of the side

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sheets is the conventional coping angle 3 which is of bulb shape, that is, having a horizontal flange 4 and vertical flanges 5 and 5a; the latter extending downwardly from the outer end of the horizontal flange 4.

Extending longitudinally of the coping angle is a reinforcing rod 6 having relatively flat portions 7 preferably welded, as indicated at 8, to the outer edge of the horizontal flange 4 of the adjacent coping angle, and in alignment with the depending flange 5a. The portions 9 and the reinforcing rods 6 are spaced upwardly from the horizontal flange 4 of the coping angle sufficiently to receive between the lower face of the bar and the upper face of the flange 4 a loading band such as illustrated in dot-and-dash lines in Figure 5. The upwardly spaced portions 9 may and preferably are formed during the final rolling operations of the bar 6.

It has been found that by having the rod 6 extending continuously from one end of the car to the other the section modulus of the coping angle is increased approximately twelve and one-half percent. It has also been found that by providing a continuous rod having at spaced intervals loading band-receiving portions, the attachment of the loading band becomes a simple problem, that the necessity for burning holes in side sheets in order to provide openings for the looped portion of the loading band is entirely obviated, and the tendency of the loading bands to distort the side wall of the gondola car where separate castings are employed, is entirely avoided.

Instead of bending the rod 6 in the manner shown, in the preferred form of the reinforcing bar 6 it may be formed to provide outwardly spaced curved portions 10 as shown in Figures 4 and 5 so that the loading bands may extend from these raised portions at a plurality of different angles. The features of the car construction illustrated in Figures 4 and 5 are identical with those shown in Figures 1 to 3, inclusive, and are designated by corresponding reference numerals.

Various modifications may be made in the specific embodiments of the invention here illustrated and described without departing from the spirit of the invention as defined in the appended claims.

This application is a continuation of my application, Serial No. 121,780, filed October 17, 1949, entitled Loading Band Anchors, said application being now abandoned.

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What I claim is:

1. In a gondola car, the combination of side sheets and side stakes, an angle bar extending longitudinally of the car and secured to the upper ends of said sheets and stakes, said bar having a horizontal flange terminating in a depending reinforcing portion and a high tension loading band anchor rod contacting and secured to the horizontal flange in vertical alignment with said depending reinforcing portion and at spaced intervals, the spaces between said connections being adapted to receive the looped portions of the anchor bands, said rod serving to additionally reinforce said sheets, stakes and anchor bar against lateral distortion, caused by stresses at right angles to the longitudinal axis of said reinforcing portion.

2. In a gondola car, the combination of side sheets and side stakes, an angle bar extending longitudinally of the car and secured to the upper ends of said sheets and stakes, said bar having a horizontal outwardly extending flange terminating in a depending reinforcing portion, and a high tension loading band anchor rod secured to said flange at spaced intervals and in vertical alignment with said reinforcing portion, the spaces between the points of securement of said reinforcing rod providing openings for the high tension anchor bands, and said anchor bands

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transferring to said anchor rod stresses at right angles to the longitudinal axis thereof.

3. In a gondola car, the combination of side sheets and side stakes, an angle bar extending longitudinally of the car and secured to the upper ends of said sheets and stakes, said bar having a horizontal flange extending outwardly of the vertical plane of said side sheets and terminating in a depending reinforcing portion, a high tension loading band anchor rod contacting and secured to said horizontal flange at spaced intervals and in vertical alignment with the said depending reinforcing portion, said rod provided intermediate each point of contact with a loading band-receiving portion, said rod serving to reinforce said sheets, stakes and angle bar against lateral distortion, caused by stresses at right angles to the longitudinal axis of said reinforcing portion.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Number	Name	Date
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