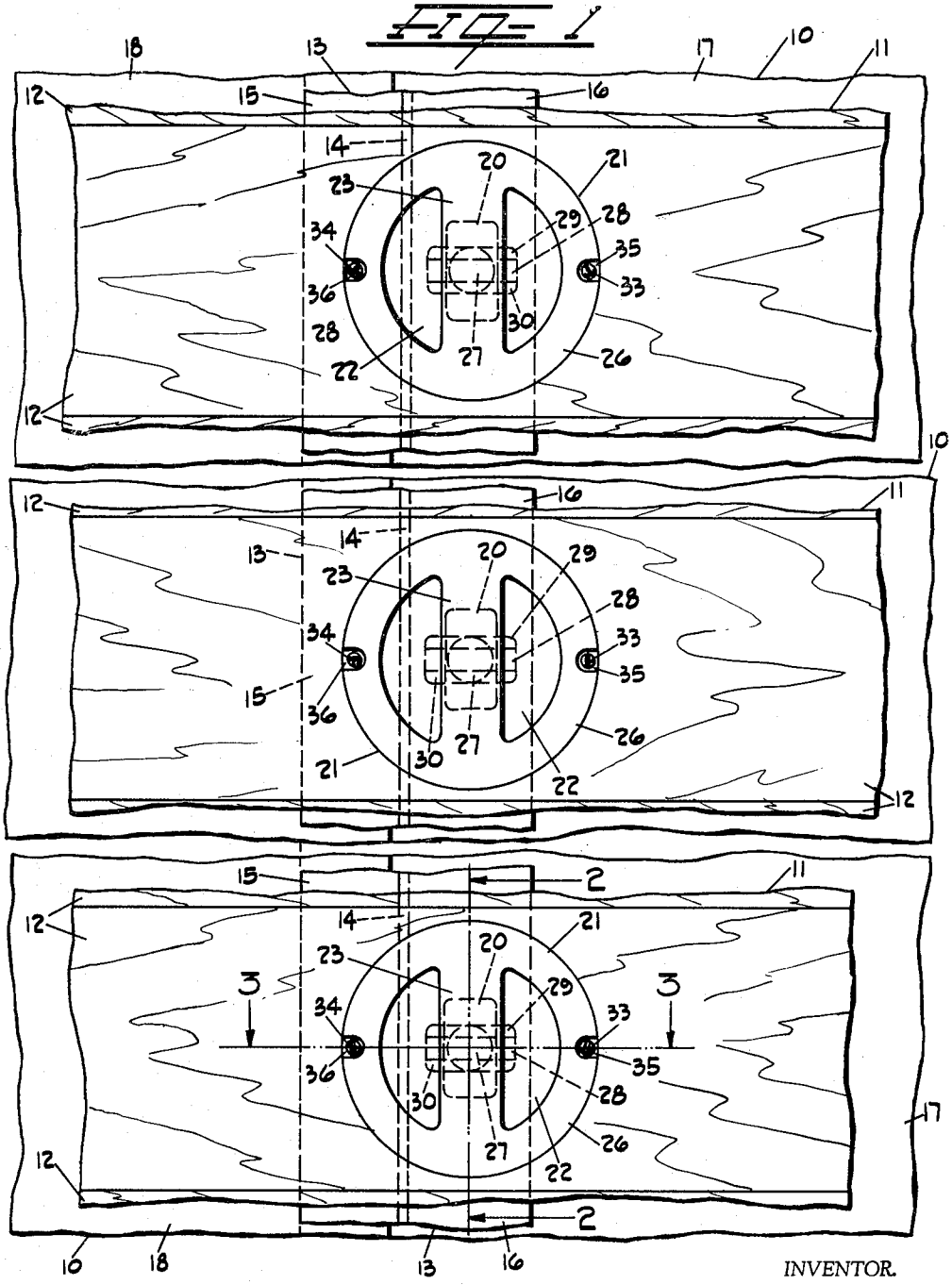
March 17, 1964 J. B. REYNOLDS 3,125,036

LADING BAND ANCHOR

Filed Jan. 29, 1962 3 Sheets-Sheet 1

FIG. 1



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LADING BAND ANCHOR

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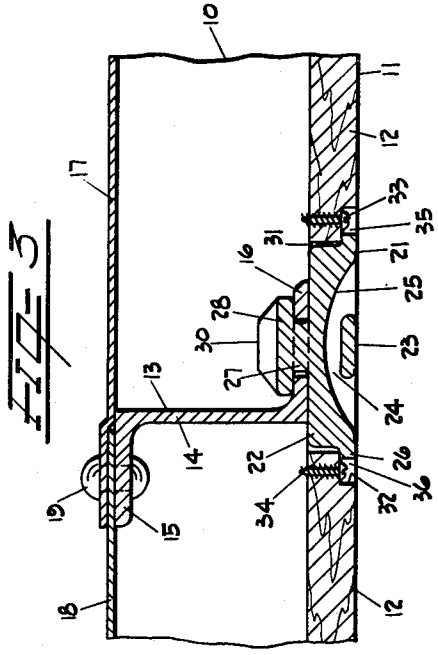


FIG. 3

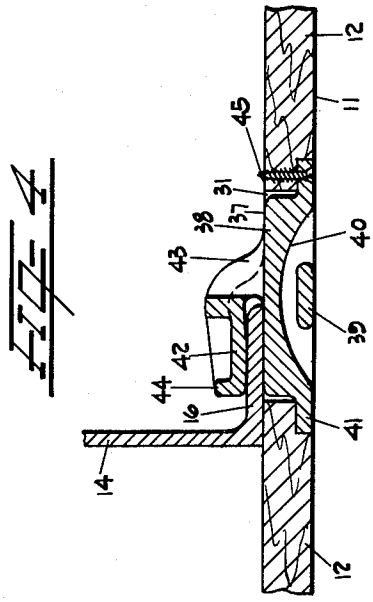


FIG. 4

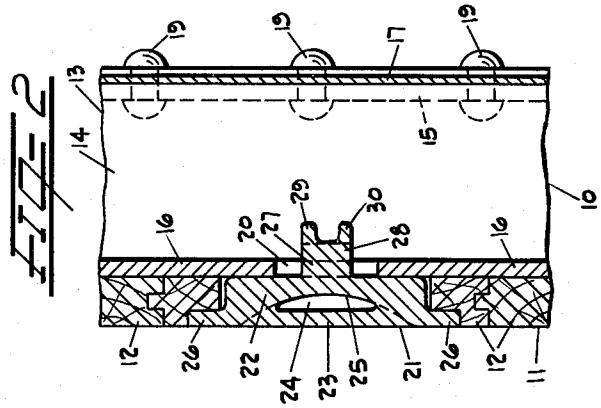


FIG. 2

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LADING BAND ANCHOR

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FIG. 5

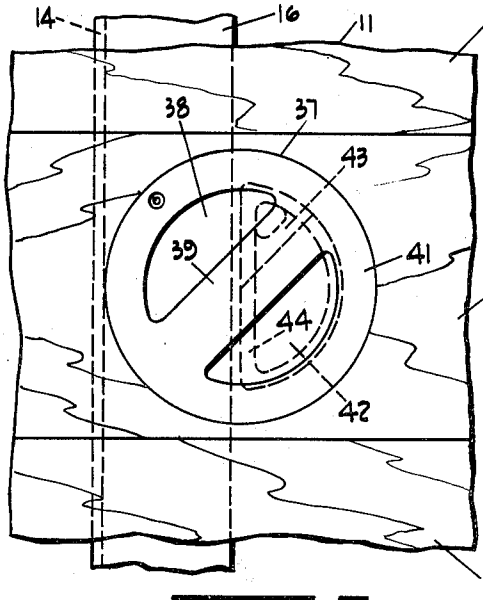


FIG. 6

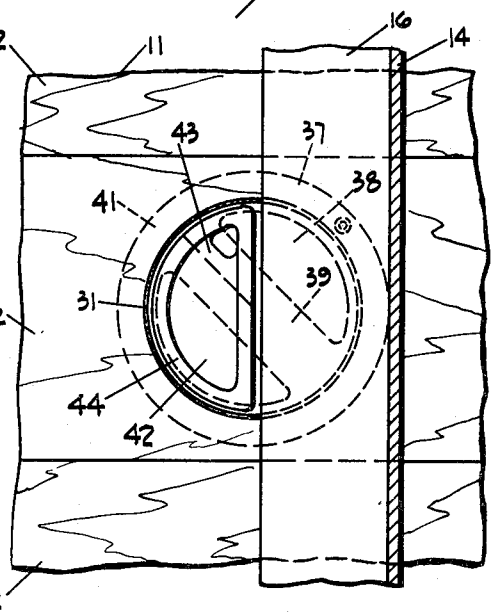


FIG. 7

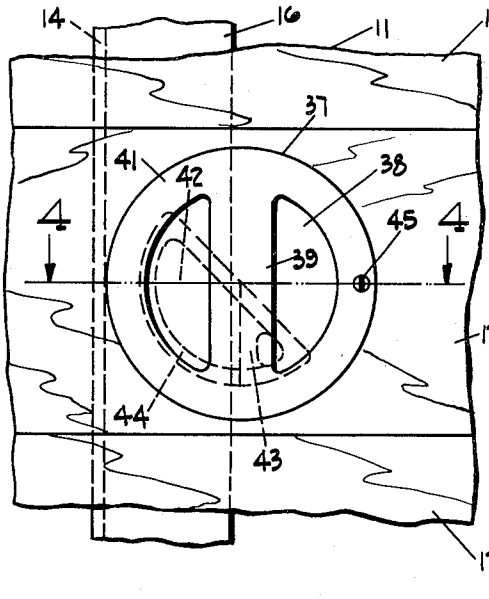
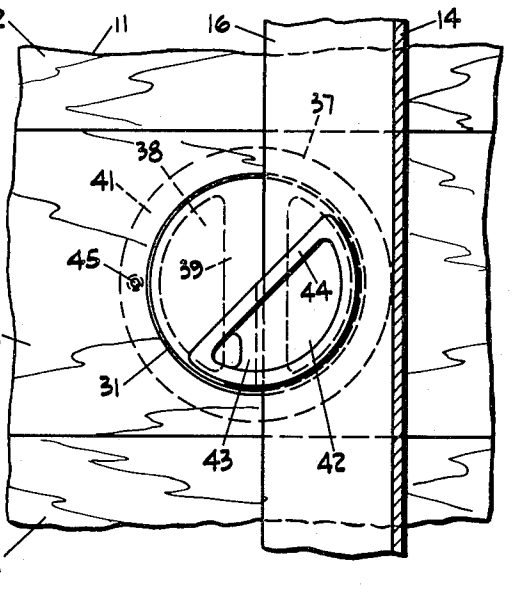


FIG. 8



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United States Patent Office 3,125,036 Patented Mar. 17, 1964

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LADING BAND ANCHOR

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Filed Jan. 29, 1962, Ser. No. 169,441
3 Claims. (Cl. 105—369)

This invention relates to lading band anchors.

It is an object of this invention to provide lading band anchors which shall embody securing means.

A further object is to provide lading band anchors which shall embody securing means capable of fastening the anchors in position by rotation of the anchors.

A further object is to provide lading band anchors which shall embody securing means and which shall be capable of securement to structures after such structures have been completely applied.

A further object is to provide lading band anchors which shall embody securing means and which shall be removable from the structures to which they are applied while leaving such structures intact.

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 fragmentary elevation with parts omitted showing the inside of a side wall of a railway box car and lading band anchors embodying the instant invention secured to an intermediate post of the wall.

FIG. 2 is a vertical section taken on line 2—2 of FIG. 1.

FIG. 3 is a horizontal section taken on line 3—3 of FIG. 1.

FIG. 4 is a horizontal section similar to FIG. 3 showing a modified form of the invention.

FIG. 5 is a fragmentary elevation of the inside of a side wall of a railway box car showing the initial position of the lading band anchor of FIG. 4 relative to an intermediate post of the side wall to which the anchor is secured.

FIG. 6 is a view similar to FIG. 5 showing the reverse side of the anchor.

FIG. 7 is a view similar to FIG. 5 showing the securement of the anchor to the post upon rotation of the anchor.

FIG. 8 is a view similar to FIG. 7 showing the reverse side of the anchor.

Referring to the drawings and first to the embodiment of the invention illustrated in FIGURES 1 to 3, the reference numeral 10 designates generally a portion of a side wall of a railway box car. The view illustrated in FIG. 1 is taken from the inside of the car looking at the lining of the side wall thereof. The usual wood lining is shown and embodies a plurality of customary tongue and groove boards 12 which extend substantially the height of the side wall. In addition to the inside wood lining 11, the side wall of the box car includes door posts (not shown) and spaced intermediate posts, one of which is designated by the reference numeral 13. Each of the posts 13 is preferably Z-shaped in section and is arranged with its web 14 extending crosswise of the side wall 10 and with its outer and inner flanges 15 and 16 disposed parallel to the side wall. The wooden lining 11 bears against the inner face of the flange 16 and is secured to the posts in any desired manner. Metallic sheets 17 and 18 are overlapped at the outer flange 15 and are secured thereto as by means of rivets 19. The sheets 17 and 18 constitute the outer metallic sheathing of the side wall. As clearly illustrated in FIGURES 1 to 3 of the drawings, the inner flange 16 is provided with a plurality of vertically spaced elongated openings 20 for a purpose which will hereinafter appear.

The instant invention provides lading band anchors 21 accessible from the inside of the car to which lading bands (not shown) may be secured in ordder to prevent shifting

of lading in box cars when the cars are subjected to impact. These anchors comprise a body 22 and a vertically extending tie bar 23 spaced from the inner face of the body in order to provide a lading band receiving space 24. This is preferably accomplished by dishing the inner face of the body of the anchor as indicated at 25. The tie bar 23 preferably lies flush with the inside of the lining 11. As shown more clearly in FIG. 1 the body of the lading band anchor 22 is round and is provided with an inner peripheral flange 26 which is adapted to overlie the inside of the lining.

A stem 27 extends substantially centrally from the outer face of the body portion 22. The stem 27 carries a head 28 which extends in opposite directions beyond the stem 27 and which is reinforced by means of spaced ribs 29 and 30. As shown in FIGURES 1 and 3, the head 28 which together with the stem 27 forms a substantially T-shaped member, is shorter than the length of the opening 20 but is longer than the width of this opening.

By reason of the instant invention the lining 11 may be completely fabricated and secured to the posts of the car side wall prior to the securement of the lading band anchors to the posts. More specifically, the wooden lining may be formed with vertically spaced round openings 31 which are somewhat greater in diameter than the diameter of the body 22 of the lading hand anchors 21. The desired number of openings 31 may be made in the lining boards and the latter assembled and secured to the posts with the openings 20 and 31 in alinement. Thereafter, without disturbing the lining, the lading band anchors may be applied and fastened to the posts.

Fastening of the lading band anchors to the posts is accomplished by projecting the heads 28 thereof through the openings 20 formed in the inner flange 16 of the posts. In so doing the body 22 of the anchors is seated within the preformed openings 31 in the lining which has previously been rabbeted around the openings 31 as indicated at 32 to receive the flanges 26 whereby the anchors are flush with the lining. At this time the outer face of the body 22 of the anchors are against the inner face of the flanges 16. Thereupon the anchors 21 are rotated within the openings 31 of the lining through an angle of 90° so as to dispose the head 28 of the anchors across the openings 20 and in engagement with the outer face of the flanges 16. The lading band anchors are thereby fastened to the posts. To prevent rotation of the anchors after they have been secured to the posts, screws 33 and 34 are threaded into the lining 11 so that the heads thereof lie in openings 35 and 36 formed in the flanges 26.

The instant invention makes possible an optional securement and preparation of the wooden lining for the reception of the lading band anchors. The solid lining boards may be assembled in engagement with the inner face of the flanges 16 and secured to the posts. Thereafter the desired openings 31 and rabbeted portions 32 may be provided in the lining for the reception of the lading band anchors. Accordingly the instant invention provides for ease and speed of lining and lading band anchor application. It is apparent also in the event it becomes necessary to replace lading band anchors that it is only necessary to withdraw the screws 33 and 34, rotate the lading band anchors through 90°, and take them out of the openings 31 in the lining without disturbing the lining. Replacement is accomplished in the manner described hereinabove.

The accomplishments of the instant invention are obtained as well in the embodiment illustrated in FIGURES 4 to 8. The lading band anchor 37 is provided with a body 38 similar to the body 22 of the first embodiment and a tie bar 39, dished inner face 40 and inner marginal flange 41 similar, respectively, to the tie bar 23, the dished inner faced 25 and the marginal flange 26 of the first de-

scribed embodiment of the invention. The outer face of the body 38 carries a securing flange 42, a small area 43 of which extends outwardly from the outer face of the body 38 so as to dispose the securing flange 42 in overlapping spaced relationship with the body 38. The securing flange 42 is reinforced by means of a rib 44.

In order to secure the lading band anchor to the flange 16 of the posts, it is disposed within an opening 31 formed in the lining as shown in FIGURES 5 and 6 of the drawings. In this initial position of the lading band anchor the securing flange 42 lies in offset relationship to the flange 16 so that the latter does not interfere with the proper placement of the anchor in the opening 31. Thereafter the lading band anchor is rotated clockwise as viewed from the inside of the car to the position illustrated in FIGURES 7 and 8 of the drawings. This rotation of the anchor brings the securing flange 42 into overlapping engagement with the outer face of the flange 16, while the body 38 bears against the inner face of this flange. Thereupon the anchor is fastened to the post flange. A screw 45 is then threaded into the lining 11 through an opening provided in the marginal flange 41 in order to prevent rotation of the anchor.

The lading band anchor described immediately above has the further advantage of avoiding the need for openings in the flange 16 so that this flange remains intact.

Removal of the lading band anchors is accomplished by removing the screws 45, rotating the anchors until flange 42 is disengaged from post flange 16, and pulling the anchors out of the openings 31 in the lining. Placement and replacement of the lading band anchors is obtained without disturbing the lining.

It will be apparent that the anchors of the instant invention can be applied to as many of the posts of the car side walls as desired, and that as many anchors as desired can be applied to each post.

It will be apparent that numerous changes and modifications in the details of the invention will be clear to those skilled in the art. It is intended, therefore, that all such modifications and changes be comprehended within this invention which is to be limited only by the scope of the claims appended hereto.

I claim:

1. In a railway car having a side wall including a post having a vertically extending flange parallel to the side wall and an inner lining secured to said post in engagement with said flange and having spaced openings at said flange, the free edge of said flange being spaced from the lining openings, lading band anchors, each of said anchors comprising a circular body, a tie bar on one side of said body, a wall projecting at an angle from the opposite side of said body within the peripheral boundary thereof and in offset relationship to the center thereof and a flange extending from said wall in spaced overlapping relationship with said body, said flange being spaced from said body a distance substantially equal to the thickness of said post flange, said anchors being seated in the lining openings with said bodies bearing against one face of said post

flange and said walls and anchor flanges contiguous to said free edge of said post flange for rotation in the lining openings, said post flange being received between said bodies and said anchor flanges after rotation of said anchors in said lining openings and said walls being engaged with said free edge of said post flange and limiting rotation of said anchors and propertly positioning said anchors in the lining openings.

2. In a railway car having a side wall including a post having a vertically extending flange parallel to the side wall and an inner lining secured to said post in engagement with said flange and having spaced openings at said flange, the free edge of said flange being spaced from the lining openings, lading band anchors, each of said anchors comprising a circular body, a tie bar on one side of said body, a wall projecting at an angle from the opposite side of said body within the peripheral boundary thereof and in offset relationship to the center thereof and a flange extending from said wall in spaced overlapping relationship with said body, said flange being spaced from said body a distance substantially equal to the thickness of said post flange, said anchors being seated in the lining openings with said bodies bearing against one face of said post flange and said walls and anchor flanges contiguous to said free edge of said post flange for rotation in the lining openings, said post flange being received between said bodies and said anchor flanges after rotation of said anchors in said lining openings and said walls being engaged with said free edge of said post flange and limiting rotation of said anchors and properly positioning said anchors in the lining openings, and means engaging said anchors and lining to prevent rotation of said anchors.

3. A lading band anchor for the side walls of railway cars comprising a circular body, a tie bar spaced from one side of said body to provide lading band receiving space, a wall projecting at an angle from the opposite side of said body within the peripheral boundary thereof and in offset relationship to the center thereof and a flange extending from said wall in spaced overlapping relationship with said opposite side of said body.

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