United States Patent [19]

Jones

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[54] **RAILWAY CAR CORNER CONSTRUCTION**

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[73] Assignee: **Pullman Incorporated**, Chicago, Ill.

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[52] **U.S. Cl.** **52/282**, 105/410

[51] **Int. Cl.** **B61d 17/06**

[58] **Field of Search** 105/410, 421, 402; 296/29; 52/282, 281, 732

[56] **References Cited**

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Assistant Examiner—Carl D. Friedman
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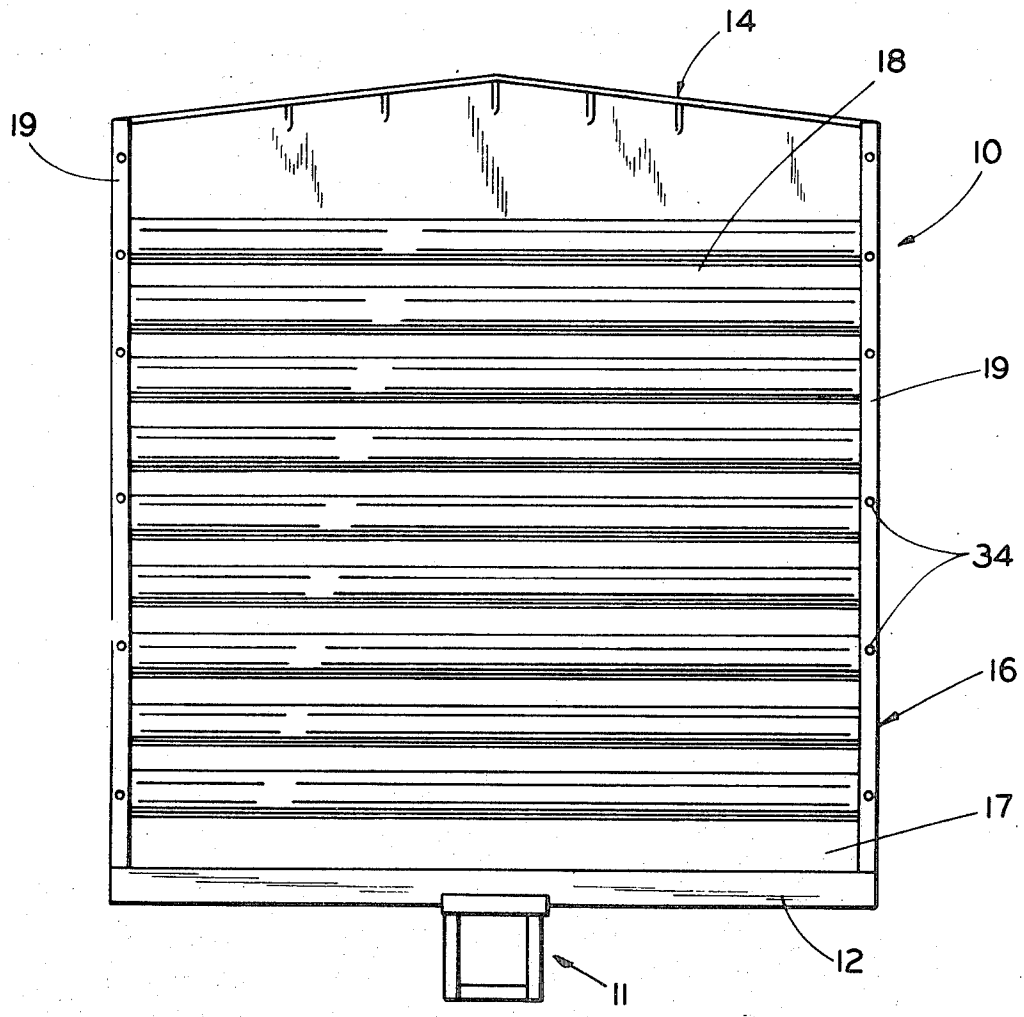
[57] **ABSTRACT**

A railway car body includes side sheathing having vertical reinforcing posts on the outer side of such sheathing. The ends of the box car include corner posts of generally channel shaped configuration including longitudinally extending flanges to which the side sheathing is connected. The end construction includes a corrugated end having longitudinally extending flanged portions connected to the webs of the channel shaped corner posts which provide a strong and easily assembled design.

7 Claims, 4 Drawing Figures



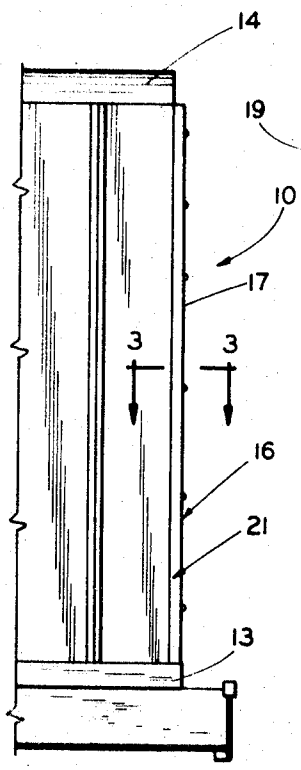


FIG.2

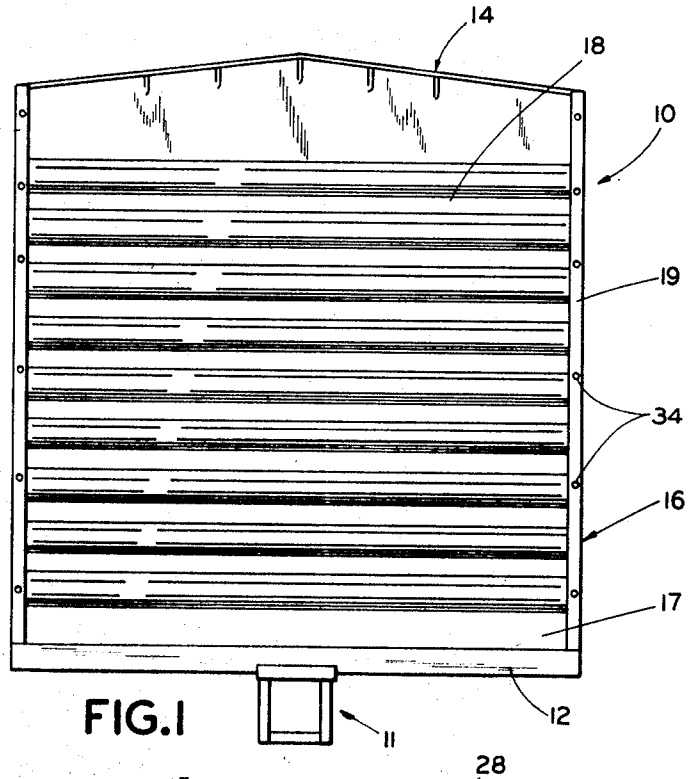


FIG.1

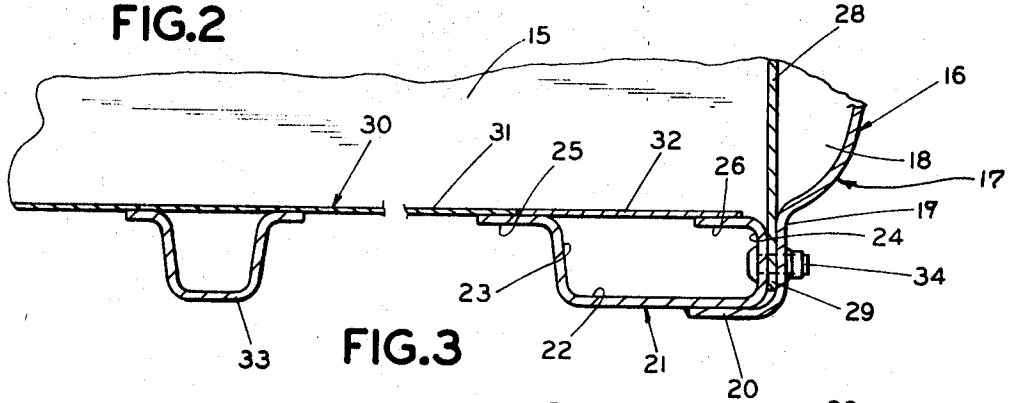


FIG.3

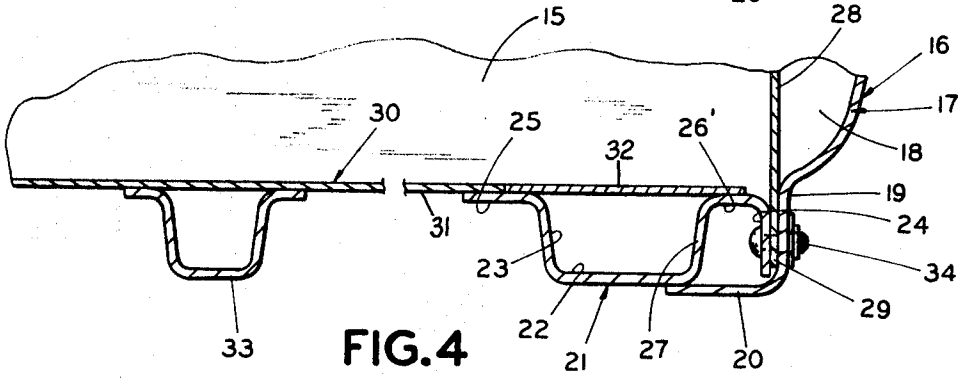


FIG.4

RAILWAY CAR CORNER CONSTRUCTION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention pertains to the field of railway car body design and particularly to end corner post constructions.

2. Description of the Prior Art

The prior art is exemplified in such U.S. Pats. as No. 1,773,397, Aug. 19, 1930; No. 2,107,861, Feb. 8, 1938; No. 2,324,921, July 20, 1943 and No. 2,555,296, May 29, 1951.

SUMMARY OF THE INVENTION

The primary object of the present invention is to provide an improved corner construction for the body ends of a railway box car. The invention resides in a channel shaped vertical corner post having longitudinally extending flanges to which the side sheathing of the body is connected. The corner post also includes a laterally extending flange parallel to a box car end between which the ends of an inner sheathing panel are connected in sandwich type relation.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an end view of a railway box car body;

FIG. 2 is a side elevational view of an end portion of a railway car body;

FIG. 3 is a cross sectional view taken substantially along the line 3—3 of FIG. 2; and

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

DESCRIPTION OF THE PREFERRED EMBODIMENT

A railway car body 10 comprises an underframe including a center sill 11. As best shown in FIG. 1, a lower end sill 12 extends laterally and is supported on the center sill 11. Lower side sills 13 extend longitudinally the length of the body and a roof 14 is supported on the body 10 in conventional fashion. The body includes a conventional floor designated at 15 in FIGS. 3 and 4.

The box car body 10 includes at opposite ends thereof end constructions, one of which as shown in FIG. 1 is designated generally at 16. The end construction 16 includes an end wall 17 having a plurality of vertically spaced and horizontally extending corrugations 18. The corrugations 18 terminate short of the terminal edges of the opposite sides of the end wall 17 to provide vertically extending flat edges 19 on opposite ends thereof. The flat edges 19 each have connected thereto a first flange 20 which extends longitudinally and inwardly from the end wall 17. A corner post 21 includes an outer web 22 having a second flange 23 extending laterally inwardly and which is integral with a longitudinally extending inwardly directed fourth flange 25. As best shown in FIG. 3, the web 22 also has connected thereto a laterally extending third flange 24 which is integrally connected to a longitudinally extending and inwardly directed fifth flange 26.

As indicated in FIG. 3, an inner lining or end sheet 28 includes edge portions 29 which are positioned in sandwich like relation between the third flange 24 and the flat edge 19 of the end sheet 16. Outer side sheathing generally designated at 30 includes a panel 31 having an end connected to the flange 25. A second

smaller panel 32 is suitably connected to the flanges 25 and 26. Connection of the construction herein disclosed may be by welding or other suitable securing means. The side sheathing 30 has connected thereto a plurality of horizontal spaced vertically extending corner posts 33 of conventional design.

As best shown in FIG. 3, the present construction easily lends itself to assembly in that bolt and nut assemblies 34 may be utilized to secure the corner post 21 to the end construction 16. This, of course, also may be achieved by welding since sufficient space is provided to accomplish this purpose. The panel 32 is applied only after the end construction has been suitably fastened to the corner post.

DESCRIPTION OF THE MODIFICATION

In FIG. 4 a modified end construction is disclosed and the same reference characters apply to the same parts, as disclosed in the preferred embodiment. In this construction, however, the reference character 24' designates the third flange, 26' designates the fifth flange and 27 designates a sixth flange which connects the web 22 to the flange 26' which in turn is integral with the flange 24' to which the ends of the inner sheet 28 are connected by suitable fasteners 34. In this particular design the end wall 17 may be fastened last to the bolt and nut assembly 34 wherein the bolts first may be secured in position during sub-assembly so that the apertured sheathing 28 and apertured flat edges 19 may be mated with the secured bolts and so that subsequently the nut and lock washers can be applied. The flange 20 in this design is then welded to the web 22 of the corner post.

In both of the preferred embodiment and in the modification it can be seen that the application of the inner sheets is relatively simple and a very strong end corner construction results. In both instances a very strong box-like corner arrangement assures a maximum strength at these areas and in the modification the configuration of the flanges 24', 26' and 27 with the flange 20 provides an additional or auxiliary box-type construction greatly increasing the strength in the corner areas of the car.

What is claimed is:

1. A railway car corner construction comprising an external end wall provided with a vertically extending flat edge portion,

a vertical first flange integral with said edge portion extending longitudinally inwardly from said end wall,

a corner post having an outer vertical web and vertical laterally extending second and third flanges,

means connecting said first flange to said web,

inner end wall sheathing connected to said end wall edge portion and said third flange in sandwich relation,

fourth and fifth vertical flanges respectively connected to said second and third flanges and extending longitudinally with respect to said end wall, and

vertical side sheathing connected to said fourth and fifth vertical flanges.

2. The invention in accordance with claim 1, said third flange extending substantially parallel with respect to said end wall.

3. The invention in accordance with claim 2, said fifth flange extending outwardly toward said end wall.

4. The invention in accordance with claim 1, including a sixth flange connected to said web opposite to said second flange, and extending parallel to said third flange and being connected to said fifth flange to provide with said first flange a relatively box-like configuration.

5. The invention in accordance with claim 1, said fourth and fifth flanges extending inwardly with respect to said end wall.

6. The invention in accordance with claim 4, said fifth flange extending outwardly with respect to said end wall.

7. The invention in accordance with claim 1, said side sheathing comprising at least two panels, one panel having opposite end portions connected to said fourth and fifth flanges and the other panel having an end portion connected to said fourth flange.

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