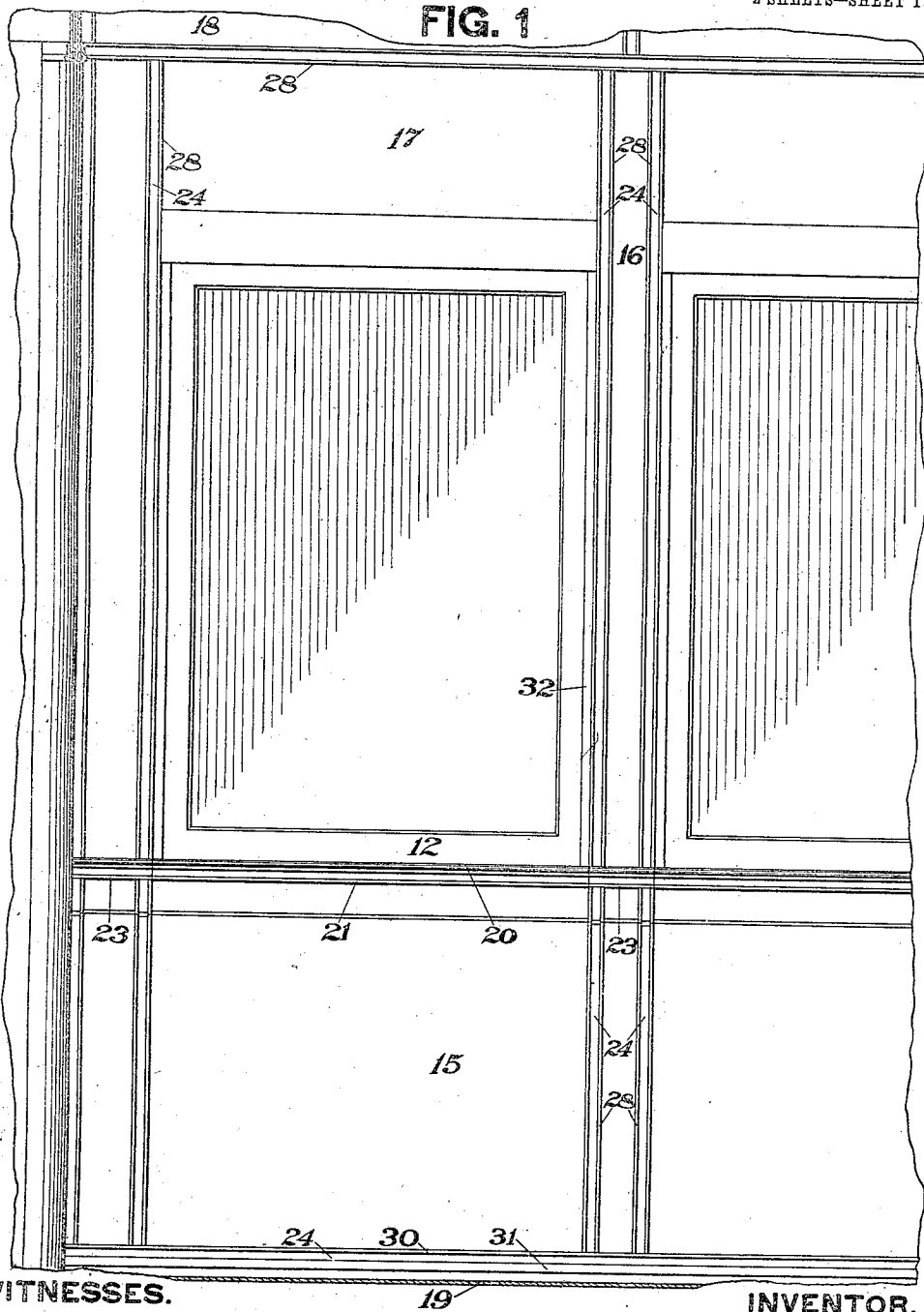


A. CHRISTIANSON.
PASSENGER AND LIKE CAR.
APPLICATION FILED SEPT. 7, 1906.

2 SHEETS—SHEET 1.



WITNESSES.

Arthur J. [unclear]
Robert C. [unclear]

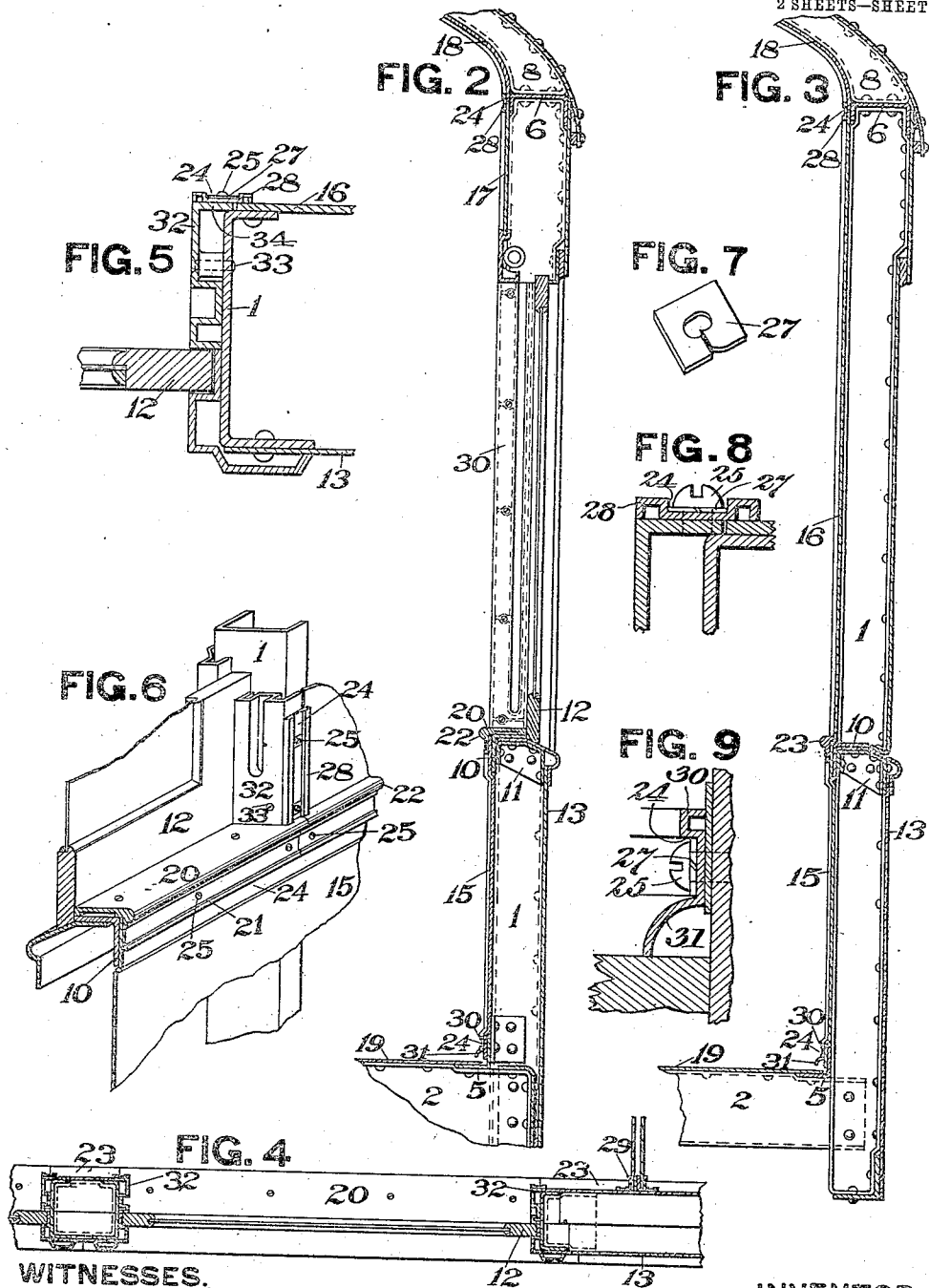
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INVENTOR.

Andra Christensen
By Ray J. [unclear] & [unclear]
attorneys

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2 SHEETS—SHEET 2.



WITNESSES.

Arthur J. [unclear]
Robert C. Totten

INVENTOR.

Andrew Christianson
By Kay Totten Winter
Attorney.

UNITED STATES PATENT OFFICE.

ANDREW CHRISTIANSON, OF BUTLER, PENNSYLVANIA, ASSIGNOR TO
STANDARD STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A
CORPORATION OF PENNSYLVANIA.

PASSENGER AND LIKE CAR.

No. 854,405.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed September 7, 1906. Serial No. 333,621.

To all whom it may concern:

Be it known that I, ANDREW CHRISTIANSON, a resident of Butler, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in Passenger and Like Cars; and I do hereby declare the following to be a full, clear, and exact description thereof.

This invention relates to railway cars, and more especially to passenger, mail, baggage and express cars. The particular feature of this invention is an interior finish for metallic cars of this kind, which preferably is thin metal sheets but may be of a composition board. The specific object of the invention is to provide an interior finish for cars of this character which is ornamental and has the general appearance of wood car construction.

The invention consists of details of arrangement of parts hereinafter described and claimed.

In the accompanying drawings Figure 1 is a side view of a portion of the interior of a car constructed according to my invention, the roof being in vertical section; Figs. 2 and 3 are vertical cross sections through the car side, Fig. 2 being taken through one of the window openings, and Fig. 3 through the space between the window openings; Fig. 4 is a horizontal section taken through a window opening; Fig. 5 is an enlarged sectional detail of a portion of Fig. 4; Fig. 6 is a perspective view of a post belt rail and adjacent parts; Fig. 7 is a similar view of one of the washers; Fig. 8 is an enlarged section of the molding; and Fig. 9 is a similar view of the floor molding.

The car side frame may be of any desired construction, although preferably it should have posts 1 of channel form placed with the webs transversely of the car body and inner and outer flanges. In the drawings the side posts 1 are shown of pressed form placed as above specified and having the outer flanges wider than the inner, the object being to save weight as far as possible. The underframe is not shown, but only portions of the transverse members thereof being shown at 2. The posts are secured directly to the ends of the transverse members, and an angle bar 5 is secured to the posts and transverse connecting floor members at the floor line. The plate of the car consists of a channel beam 6

formed of a pressed plate, placed with its flanges projecting downwardly. The posts shown are of pressed form having integral flanges on both edges as well as both ends, the top flange being riveted directly to the web of the side plate. These posts are spaced apart sufficiently to provide window openings therebetween. The roof is supported directly on the side plates 6, the lower carline member being shown at 8.

At the level of the bottom of the windows is a belt rail 10 which extends continuously for the length of the car, this rail being shown as an angle bar having its horizontal leg notched so as to pass over the posts and having its vertical flange continuous and lying inside the posts. The belt rail is connected to the posts by brackets 11, those shown being pressed plates having integral flanges on inside, outside and top. The sash is shown at 12, and the outside sheathing 13 of the car is shown as of metal construction, but as it is not claimed in this application it will not be described. The interior finish which is claimed in this application can obviously be used in connection with a car having any character of outside finish or any character of frame.

The interior may be either special composition boards or even thin wooden boards, or metal sheets, the latter being shown in the drawings. The interior finish comprises sheets 15 extending from the floor up to the belt rail, other sheets 16 between the windows and extending from the belt rail to the side plate; also sheets 17 above the windows and extending to the plate, while the ceiling sheets are shown at 18 and the floor at 19.

The window sill 20 is of metal construction, having the horizontal portion covering the horizontal leg of the belt rail and having a depending portion or apron 21 which is beaded on its edge, as shown at 22 to give a finish of the usual kind. The depending apron 21 overlaps the upper edge of the lower finishing sheets 15. In the spaces between the windows and in line with the molded window sill are special forms of moldings shown at 23, these having a bead corresponding to the bead of the window sill and having a depending apron corresponding to the apron of the window sill. Both the window sill and this molding are grooved on the

outer face as at 24 and are secured to the belt rail by means of tap screws 25, whose heads are seated in the grooves 24, and the ends are tapped into the vertical leg of the belt rail.

5 These screws not only secure these parts in place, but also secure the upper edges of the lower finishing sheets 15.

To prevent the screws from working loose, I make use of a spring washer 27, polygonal in form and seated in the groove 24 so that it cannot turn. This acts as a lock for the screws to prevent them from working loose.

The edges of all of the interior sheets are covered by a special form of molding 28, preferably of metal and having recesses in the back to lighten the same, and being provided on the face with grooves 24 and secured in place by means of tap screws 25 and locking washers 27, in the same manner as the moldings and window sills. Wherever there is an angle, these moldings are so shaped as to fit the same and to cover the edges of adjacent sheets. For instance, in the corners of the car the moldings have two portions at right angles, as shown at 29 in Fig. 4. Each of these portions is provided on its front face with a groove for receiving the heads of the tap screws and the locking washers, and they are secured to any convenient part of the car frame. They are also recessed on the back so as to lighten the same.

At the plate a simple molding 28 is employed and similar moldings are used running vertically to conceal the edges of the sheets 16 between the windows and are also used to cover the meeting edges of sheets in any place of the car.

At the floor level, the molding 30 is of special form having a groove 24 on its face for receiving the tap screws 25, but having on its lower edge a curved projecting portion 31 which meets the floor and forms in effect a quarter round at the floor level. This same form of molding may be applied to any part of the car by merely changing the shape thereof to fit on the surface on which it is to be placed.

The finish described is exceedingly simple and also of neat appearance. It has a close resemblance to the present wood interiors and the construction thereof is such that tight and neat fits can be made. The manner of connecting the same to the frame is of such a character that there is no danger of bending, buckling, denting or otherwise marring the thin finishing sheets. At the same time this connecting means is such that it cannot possibly come loose.

The inside window stop is shown at 32 and this also is of metal construction having a groove on its front face to receive the window shade and also to receive the tap screws 33 for holding the same in place. It is secured directly to the web of the post and is recessed on its back in order to reduce

weight. This stop has a right angled portion on the inner flange of the post, as shown in Fig. 5.

What I claim is:

1. In a metallic railway car, the combination of posts, a belt rail, a window sill covering the belt rail and having an extended molded portion, a corresponding finishing molding in the spaces between the windows, and means for securing the sill and molding to the belt rail.

2. In a metallic railway car, the combination of posts, a belt rail secured thereto, a window sill covering the belt rail and having a depending portion provided with a groove on its outer face, a correspondingly grooved molding for the space between the windows, and tap screws passing through the same and into the belt rail and having their heads located in the groove.

3. In a metallic railway car, the combination of posts, a belt rail secured to the same and having a vertical flange on the inside of the car, a window sill covering the belt rail and having a depending portion, a molding for the space between the windows having a corresponding depending portion, and side finishing plates secured to the posts and having their upper edges held in place by the depending portions of the sill and molding.

4. An interior finish for metallic railway cars, comprising a frame, finishing sheets applied thereto, a molding covering the edges of said sheets, said molding having a back all projecting portions of which are in one plane but being recessed to lighten the same and being provided with a groove in its face, and fastening means for the molding having heads located in said groove.

5. An interior finish for metallic railway cars, comprising a frame, finishing sheets, a metallic molding covering the edges of said sheets and having all projecting portions of its back in the same plane, said molding being provided on its face with a groove, and tap screws having their heads seated in the groove and passing into the frame.

6. An interior finish for metallic railway cars, comprising a frame, finishing sheets, a metallic molding provided with a groove on its face, tap screws for securing the molding to the car frame with their heads located in the groove of the molding, and polygonal spring washers seated in said groove underneath the heads of the screws.

7. A finish for the interior of metallic railway cars, comprising a frame, finishing sheets, a metallic molding having members at a right angle to each other and provided with a groove in the face of each of said members and tap screws passing through each of the two members of the molding and into the car frame and having their heads seated in said grooves.

8. An interior finish for the corners of me-

tallic railway cars, comprising interior finishing sheets, a metallic molding having portions at right angles to each other, each of which is provided with a groove on its face, and tap screws passing through the angle portions into the car frame and having their heads seated in the grooves.

9. In a metallic railway car, the combination of a frame plate provided with a flange on its inner edge, interior finishing sheets meeting over said flange, and a finishing molding covering the edges of the sheets and secured to the flange of the plate.

10. In a metallic railway car, the combination of a frame plate having a vertical flange on its inner edge, interior finishing sheets having their edges meeting over said flange, and a metallic molding covering the edges of said sheets and provided with a groove on its front face, and tap screws passing through the molding into the flange of the plate and having their heads seated in said groove.

11. In a metallic railway car, the combination of a floor angle, an interior finishing sheet having its lower edge overlapping one flange of said angle, and a metallic molding covering the edge of the sheet and secured to the floor angle and having at its lower edge a rounded portion projecting inwardly.

12. In a metallic railway car, the combination of a side frame, a floor angle secured thereto, side sheets having their lower ends lapped over said floor angle, a metallic molding having its outer face grooved, and

having a projecting rounded portion at its lower edge reaching the floor, and tap screws passing through said molding into the floor angle and having their heads seated in the groove thereof.

13. In a metallic railway car, the combination of posts, a belt rail presenting a horizontal face between the posts and a vertical face inside of the posts, interior finishing sheets overlapping the vertical face of the belt rail, and an ornamental metallic sill covering the horizontal face of the belt rail and overlapping the upper edge of the finishing sheets and secured to the frame.

14. In a metallic railway car, the combination of posts provided with window openings there between, a belt rail presenting a horizontal face between the posts and a vertical face inside of the posts, an ornamental sill covering the horizontal face of the belt rail and having a vertical portion, an interior finishing plate having its upper edge concealed by the depending portions of the sill, other finishing plates at the sides of the window openings, and an inside metallic window stop having on its interior edge a laterally projecting portion overlapping the edge of the post.

In testimony whereof, I the said ANDREW CHRISTIANSON have hereunto set my hand.

ANDREW CHRISTIANSON.

Witnesses:

ROBERT C. TOTTEN,

J. R. KELLER.