

(No Model.)

L. J. HARRIS.
RAILWAY CAR.

No. 453,594.

Patented June 2, 1891.

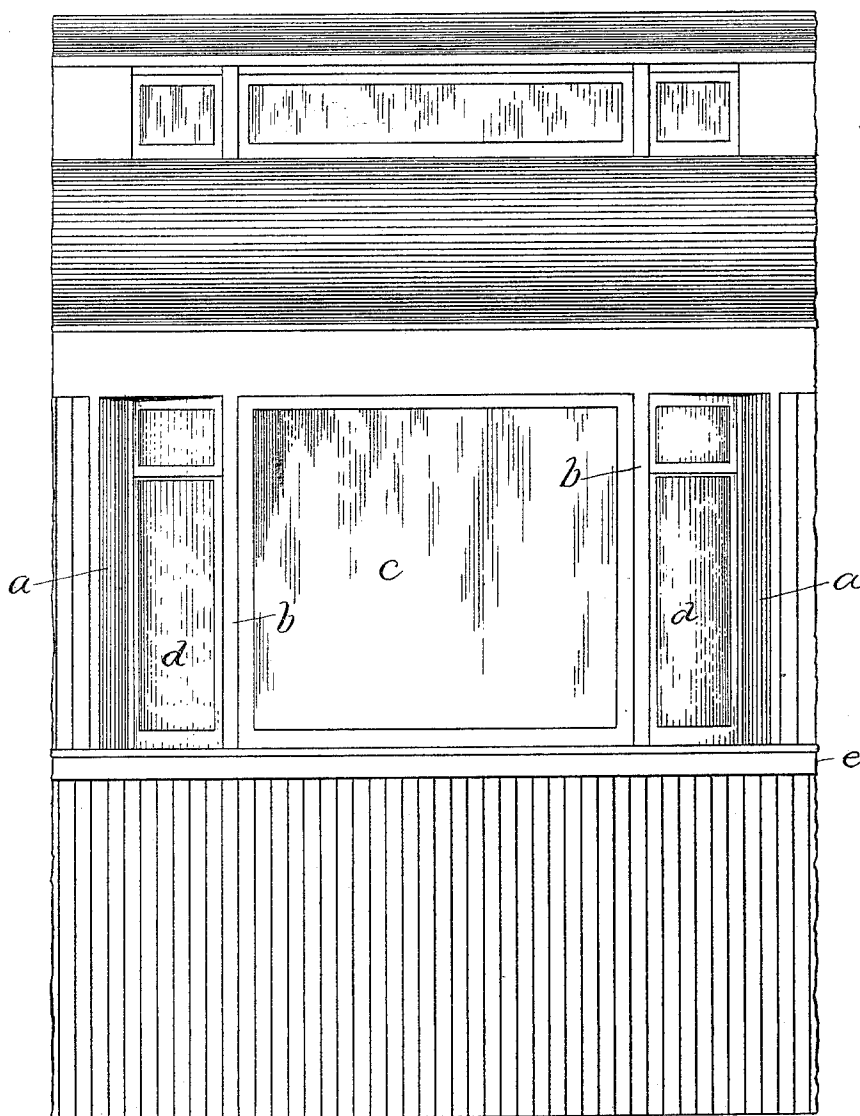


Fig. 1.

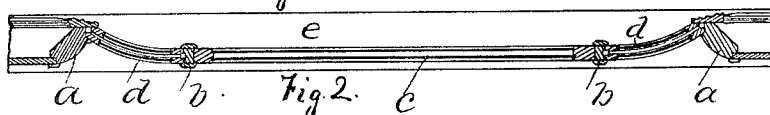


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

LOUIE J. HARRIS, OF BOSTON, MASSACHUSETTS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 453,594, dated June 2, 1891.

Application filed April 19, 1890. Serial No. 348,626. (No model.)

To all whom it may concern:

Be it known that I, LOUIE J. HARRIS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Windows and Frames of Railway-Cars, Coaches, &c., of which the following is a specification.

My improvement has special reference to the construction of windows in the side of a car, it being the object of the invention to provide such change in the construction of car-windows as will secure practically all of the advantages of a bay-window, while the window itself shall not be bowed or built out in either direction beyond the line of the belt rail or stool of the car-body.

My invention consists in providing a car-body with a window on a main or central portion constructed in a plane or straight line extending longitudinally of the car-body, and side or end portions constructed on the line of the segment of a circle or an ellipse or straight and arranged in a plane at an angle to the sides of the belt-rail *e*, the entire window being constructed or built within the lines of the said belt rail or stool *e*.

My invention also consists in providing a car-body at the window-point with corner-posts or posts arranged at an angle to the sides of the belt rail or stool.

The invention will first be described in view of the drawings hereto annexed and forming a part of this specification, and then pointed out in the claims.

In the drawings, Figure 1 represents a portion of the side of a car-body embodying my improvements. Fig. 2 is a horizontal sectional view taken on the line 2 2, Fig. 1.

The same letters of reference designate the same parts in both views.

In carrying out my invention I may construct the car-body, aside from the improvements herein claimed, in any known or desired manner.

At the points in the side of the car-body where it is desired to construct windows, I arrange at each side thereof a corner-post *a*—that is, a post having a convex outer face, or it may be a post rectangular in form in cross-section arranged at an angle to the belt-rail, as shown in Fig. 2. Between the said corner-posts and the pilasters *b* I arrange win-

dows *d*, preferably of curved form, extending from at or near the inner line of the belt-rail outward to or nearly to the outer line of said rail, where the said pilaster is arranged. Between the said pilasters *b* I arrange a straight or plane surface window *c*, as is clearly represented in Fig. 2.

In no case is the window built beyond the inner or outer lines of the belt-rail or the inner or outer lines, vertically considered, of the sides of the car-body; and this being the case, it is to be noted that it would be within the scope of my invention to bow or curve the window *c* and to make the windows between the corner-posts and pilasters straight, arranged at an angle to the belt rail or stool.

By my invention I secure an exceedingly strong window-framing and a window of desirable form as to appearance without occupying any more room either interiorly or exteriorly of the car-body than is done with the windows of ordinary construction, and at the same time substantially all of the advantages of the bay-window are obtained, since the occupant of the car at the window may look ahead or rearwardly out of the curved or angular windows *d*, as well as sidewise through the window *c*.

The corner-posts *a* provide a means of ventilation, since when the rearward window *d* is raised the draft or suction of air through said opened window will ventilate the interior of the car, and any flying cinders or dust outside of the car striking the curved portion or angular face of the corner-post *a* will be deflected off laterally therefrom.

Having thus explained the nature of my invention and described a way of constructing and using the same, I declare that what I claim is—

1. A car-body provided in its sides with windows consisting of the side windows *d*, arranged on a line or plane varying from the line or plane of the sides of the belt rail or stool, and a center window *c*, all within the inner and outer lines of the belt-rail and the inner and outer sides of the car-body, as set forth.

2. A car-body provided in its sides with windows consisting of the side windows *d*, curving outward from or near the inner line of the belt-rail to or near the outer line of

the same, and a center window *c*, all within the inner and outer lines of the belt-rail and the inner and outer sides of the car-body, as set forth.

5 3. A car-body provided with corner or angular posts *a* and pilasters *b*, combined with windows *d* between the corner-posts and pilasters, the windows *d* being arranged on a line or plane varying from the line or plane
10 of the sides, all within the inner and outer lines of the belt-rail and the inner and outer sides of the car-body, as set forth.

4. A car-body provided at its sides with a window-framing having the corner or angle
15 posts *a* at its sides, the windows *d*, extending

from the corner-posts on a line varying from the line or plane of the sides of the belt rail or stool, and the window *c*, extending between the windows *d* and on a line coincident with the line or plane of the sides of the belt rail
20 or stool, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 14th day of April, A. D. 1890.

LOUIE J. HARRIS.

Witnesses:

ARTHUR W. CROSSLEY,
A. D. HARRISON.