(No Model.) 3 Sheets—Sheet 1.

J. A. ENOS.

RAILWAY CAR.

No. 331,388. Patented Dec. 1, 1885.

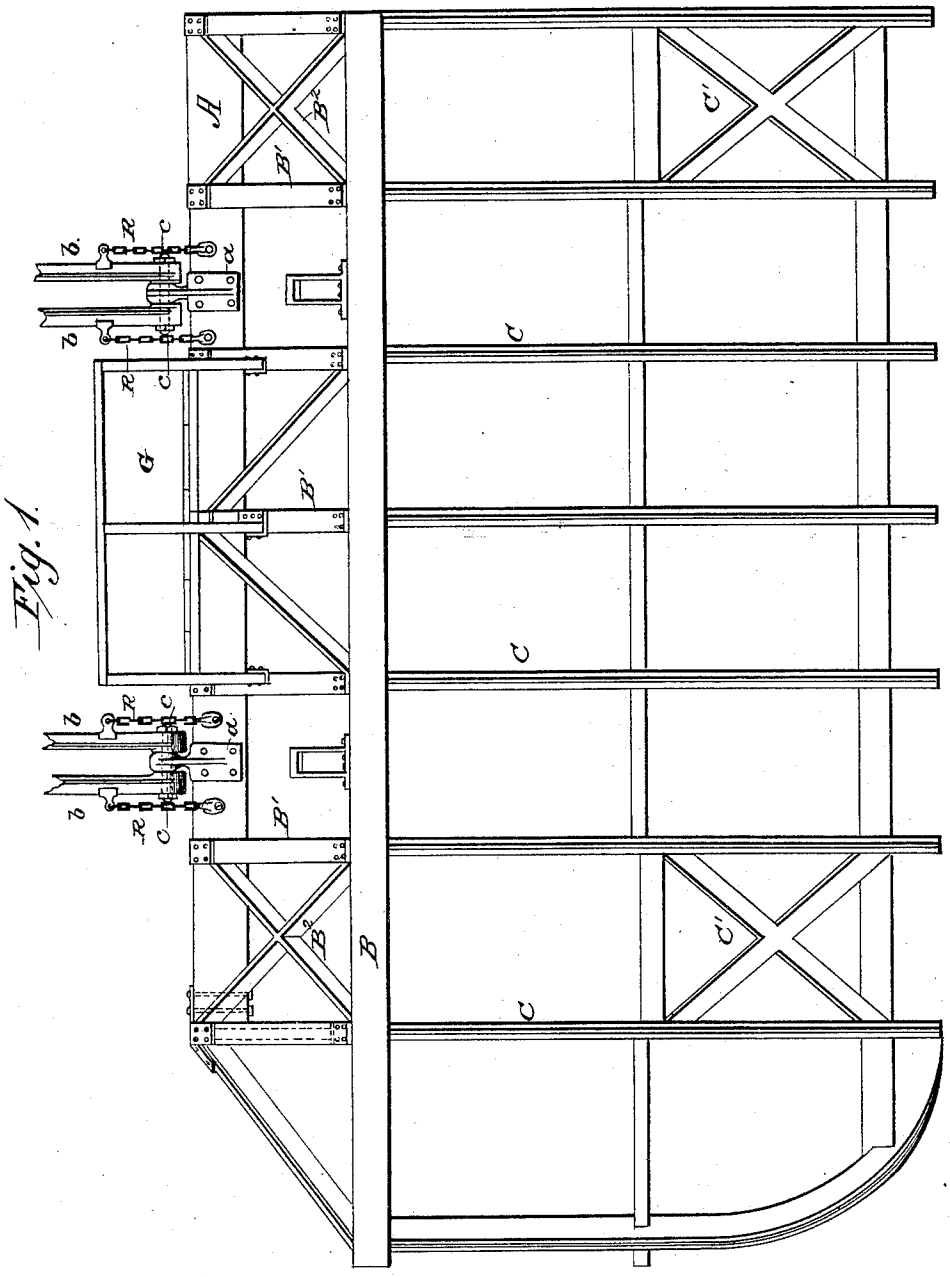


Fig. 1.

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(No Model.)

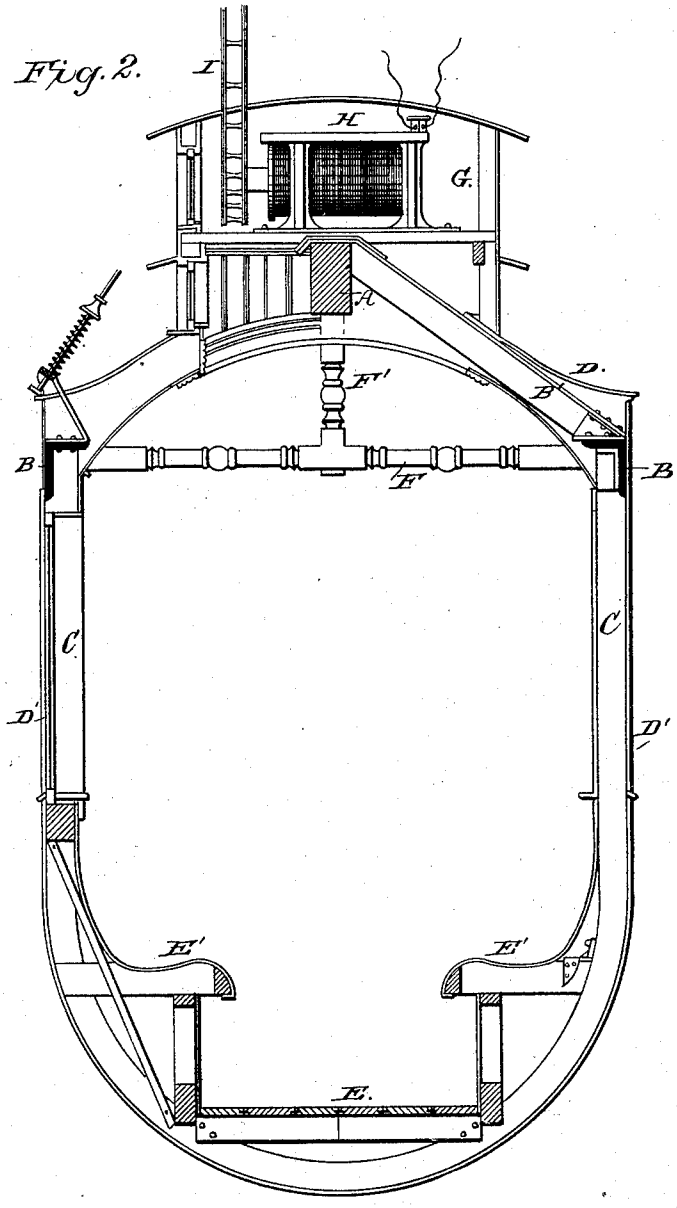
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Fig. 2.



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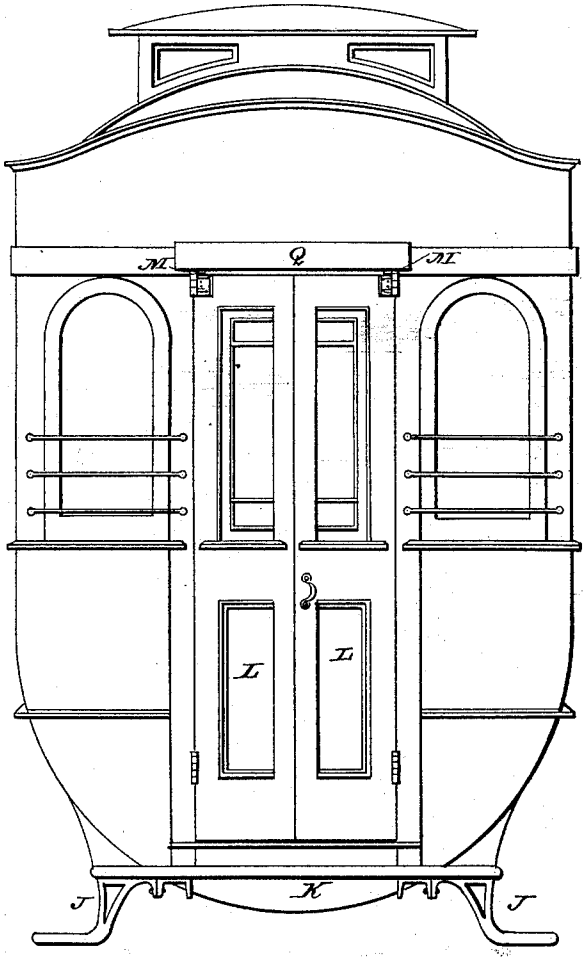
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Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. ENOS, OF PEABODY, ASSIGNOR OF TWO-THIRDS TO MATTHEW H. ROBINSON, OF QUINCY, AND ORLANDO A. FOSTER, OF SALEM, MASS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 331,388, dated December 1, 1885.

Application filed April 24, 1885. Serial No. 163,310. (No model.)

To all whom it may concern:

Be it known that I, JOHN AUGUSTUS ENOS, a citizen of the United States, residing at Peabody, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Suspended Railway-Cars, of which the following is a description.

Figure 1 is a side elevation of the skeleton or frame work of the car. Fig. 2 is a vertical cross-section of the car. Fig. 3 is a rear end view of the car.

The object of this invention is to provide a strong railway-car, designed more especially for street-railways, which is adapted to be sustained upon and travel on an elevated track above its center of gravity, and so constructed as to withstand the peculiar strains of this mode of supporting the same.

In the drawings, A represents a central longitudinal timber of great strength, whose position corresponds to that of the ridge-pole of a house, and which timber is securely fastened to the other members of the frame-work and carries the entire weight of the car when suspended, for which purpose a clevis-shaped iron, *a*, is bolted thereto near each end of the car, to which the hanger-bars *b b* are jointed by means of a strong hinge-bolt, *c*. Around the upper edge or eaves of the car there extends an angle-iron, B, which is strongly connected to the ridge-timber by metal rafters B′ and cross-braces B^2 between the same. To the horizontal angle-iron B are firmly bolted the metal U-shaped ribs C, which extend entirely around the bottom and sides of the car, much after the manner of the ribs of a vessel, and which, with the cross-braces C′, constitute the main frame of the car, which is rounding on its under side. To the rafters B′ is attached the roof D and to the ribs C is attached the sheathing D′, which closes in the car. In the bottom of the U-shaped ribs is laid the floor E, and on each side of the same are constructed the longitudinal seats E′, which parts are securely fastened to the ribs.

In order to prevent the vertical elongation of the car or collapse of the sides of the same when the weight of its load is sustained upon the middle timbers, A, I place in the interior upper portion of the car a set of braces at the points where the hangers are attached, as follows: F, Fig. 2, is a horizontal cross-brace, of metal or wood, extending from the angle-iron B on one side to the angle-iron B on the other side, and is attached thereto, and which brace F has a middle arm, F′, which extends upwardly to the ridge-timber A, and is firmly attached thereto, forming in connection with the rafters and the ridge-timber a sort of trussed frame that strongly braces the car against the strains referred to.

Between the points of suspension of the car is constructed a raised inclosure, G, in which is contained an electric motor, H, which derives its current from conductors on the tracks above, and which motor transmits its power through a chain, I, which in turn transmits its power to a supporting-truck above, as shown in two other applications filed the same day herewith.

To the rear end of the car is bolted the step-irons J, Fig. 3, upon which is sustained the platform K.

To provide for any possible breaking of the hinge-bolts *c*, which sustain the car, and which would result in the dropping of the car, I apply safety-chains R, Fig. 1, which connect the hangers to the car and come into play in the event of the breakage of the said bolts *c*.

In making use of my invention I do not confine myself to a round-bottom car, as shown, but may flatten the ribs at the bottom, if desired.

Having thus described my invention, what I claim as new is—

1. The combination, with the ridge-beam A, having suspension-irons attached to the same, and the attached frame-work, of the cross-braces F and F′, connecting the ridge-beam and the side frame of the upper portion of the car, substantially as and for the purpose described.

2. The combination of the ridge-beam A with suspension-irons, rafters B′, and cross-braces B^2, the side irons, B, U-shaped ribs C, and the braces F F′, substantially as shown and described.

3. A suspended car having U-shaped ribs,

of metal, and a rounded bottom, substantially as shown.

4. The combination, with a car having a round bottom with U-shaped ribs C, of the step-irons J, bolted thereto, and the platform K, supported therein, substantially as shown and described.

5. The combination, with the hanger and the car having a hinged connection, of the safety-chains R, connecting the hanger and the car, as described.

The above specification of my invention signed by me in the presence of two subscribing witnesses.

JOHN A. ENOS.

Witnesses:
EDWD. W. BYRN,
CHAS. A. PETTIT.