Nov. 2, 1926.

1,605,635

J. P. ANDERSON

CAR CONSTRUCTION

Filed Jan. 23, 1926

4 Sheets-Sheet 1

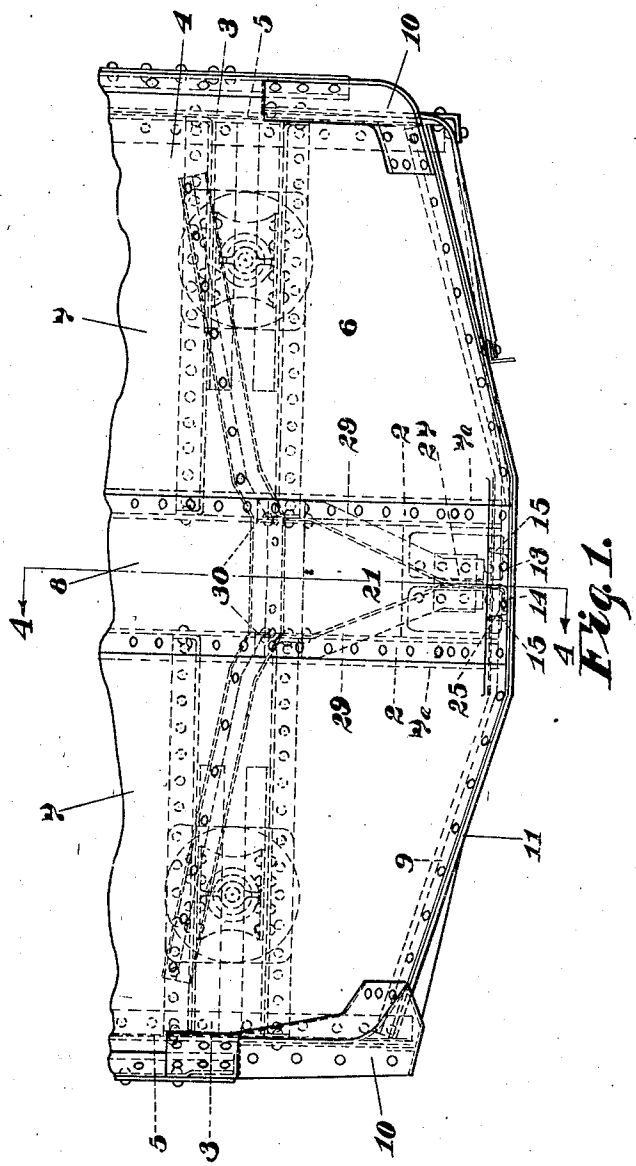


Fig. 1.

Witnesses
Robert C. Welch
Lillian Busha

Inventor
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Nov. 2, 1926.

1,605,635

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CAR CONSTRUCTION

Filed Jan. 23, 1926

4 Sheets-Sheet 2

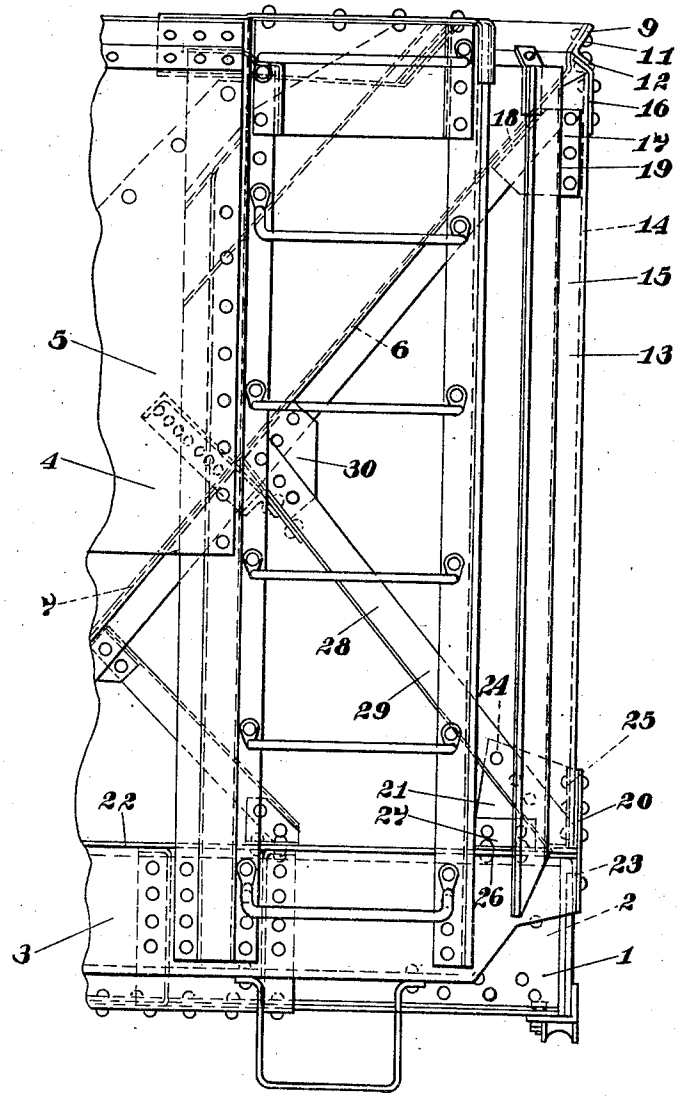


Fig. 2.

Witness
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Nov. 2, 1926.

1,605,635

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CAR CONSTRUCTION

Filed Jan. 23, 1926 4 Sheets-Sheet 3

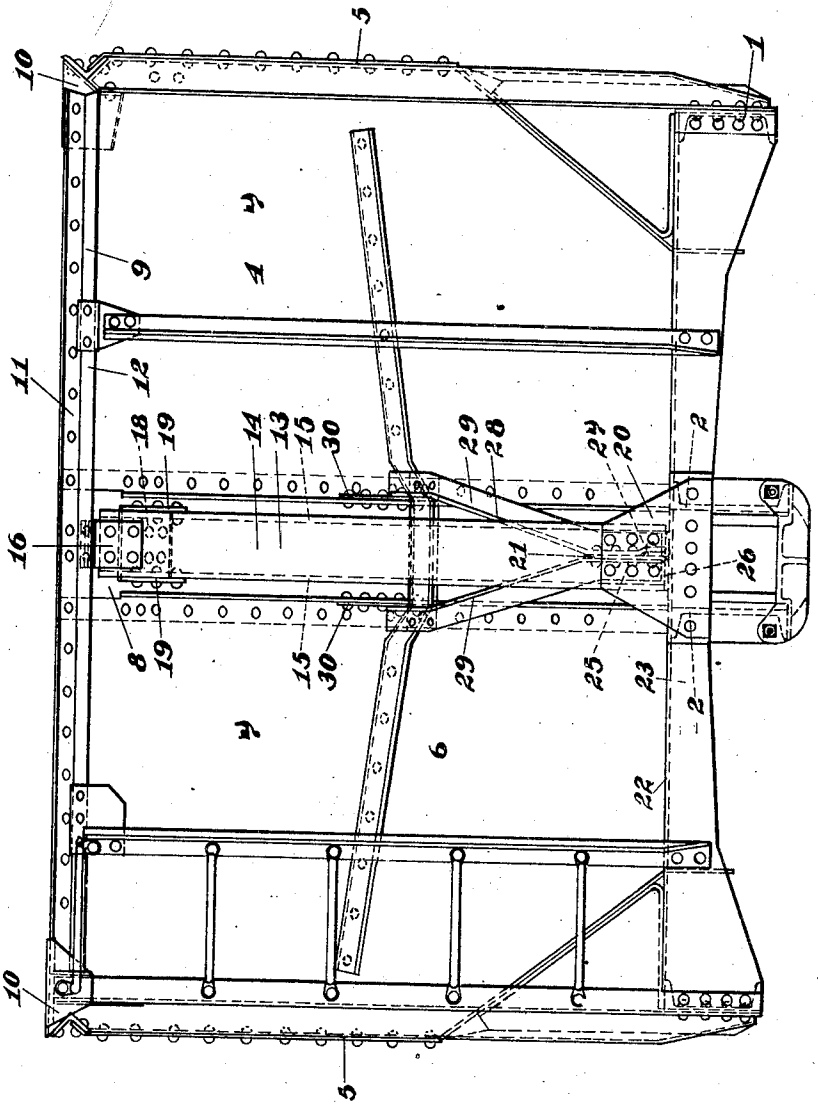


Fig. 3.

Witnesses
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Nov. 2, 1926. 1,605,635

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CAR CONSTRUCTION

Filed Jan. 23, 1926 4 Sheets-Sheet 4

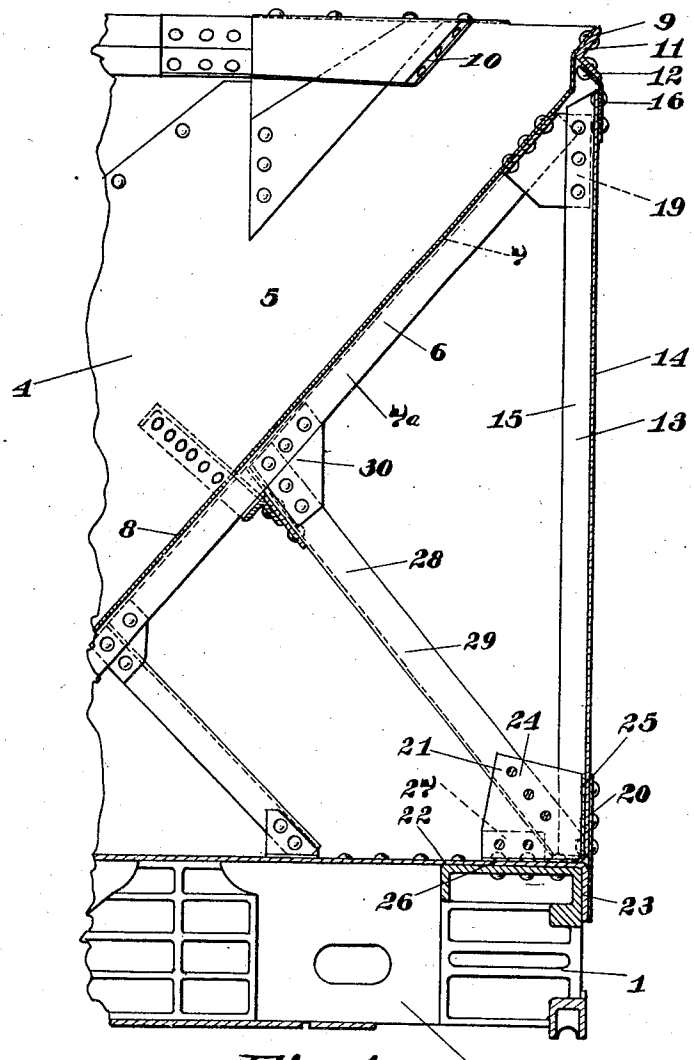


Fig. 4.

WITNESS
Robert C. Welch
Lillian Bucha

INVENTOR
John P. Anderson,
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Atty.

Patented Nov. 2, 1926. 1,605,635

UNITED STATES PATENT OFFICE.

JOHN P. ANDERSON, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

CAR CONSTRUCTION.

Application filed January 23, 1926. Serial No. 83,248.

This invention relates to railway cars and particularly to railway cars having sloping end floors and has for an object the provision of simple and efficient bracing means for the ends of such cars.

Another object of the invention is to provide a diagonal brace for a car having a sloping end floor which brace is widest adjacent the floor and tapers therefrom to its narrowest part adjacent the underframe of the car.

A further object of the invention is to provide novel vertical and diagonal bracing for the sloping end floor of a railway dump car, such bracing extending between and secured to the sloping end floor and underframe.

Referring to the drawings in which like reference characters refer to like parts, Fig. 1 is a plan view of a portion of a car embodying the invention; Figs. 2 and 3 are enlarged side and end elevational views respectively of the same; and Fig. 4 is an enlarged sectional view taken on the line 4—4 of Fig. 1.

Referring now in detail to the drawings, the reference character 1 indicates an underframe which in the present embodiment of the invention comprises spaced draft sills 2 and side sills 3, all of which are suitably connected together. Upon this underframe the body 4 of the car is mounted, which body comprises side walls 5 and sloping end floors 6. As both of the end portions of the car are substantially alike only one has been illustrated in the drawings and the following description will be limited to one end. The sloping end floor 6 comprises side floor plates 7 which at their outer edges are secured to the side walls 5 and at their inner or adjacent edges are preferably spaced apart and connected together through the medium of a center floor plate 8, which extends over the space between the plates 7 and at its sides is secured to such plates. The adjacent edge portions of these plates 7 are bent to form outwardly projecting spaced flanges 7a. To the upper edge portion of the sloping end floor 6 there is secured a coping member 9, which member at its ends is connected with the side walls through the medium of gusset members 10. This coping member is preferably of angle form having its flange 11 disposed upwardly and outwardly and secured to the sloping floor, and its flange 12 disposed downwardly and outwardly. At the longitudinal center line of the car a member 13 is provided, which is preferably of channel form in cross section having a web 14 and flanges 15. This member is preferably vertically disposed and has its flanges 15 directed inwardly toward the sloping end floor 6. The upper end of this member is connected with the coping member 9 through the medium of a plate 16, which has its upper end portion secured to the flange 12 of the member 9 and has its lower end portion secured to the web 14 of the member. This end portion of the member 13 is also connected with the sloping end floor through the medium of a member 17 which is preferably of channel form having its web 18 secured to the floor plate 8 and its flanges 19 secured to the flanges 15 of the member 13. The lower end portion of the member 13 is connected with the underframe through the medium of plates 20 and 21. The lower portion of the plate 20 is secured to the end sill or end portion of the underframe, which end sill is preferably formed by a downwardly extending flange 23 formed on a platform plate 22, such plate being secured to the draft sills and side sills. The upper portion of the plate 20 and lower portion of the web 14 of the member 13 are secured together. The plate 21 has a web 24, end flange 25 and bottom flange 26, the end flange 25, web 14 of the member 13 and the upper portion of the plate 20 being secured together and the flange 25 being secured to the underframe. The plate 21 is further connected with the underframe through the medium of an angular member 27, one flange of which is secured to the underframe and the other flange to the web 24 of the plates.

Between the sloping end floor 6 and the underframe a diagonal floor brace or support 28 is provided which comprises two members 29 which are preferably of angular form. The upper end portions of these members 29 are spaced apart and are each connected with one of the flanges 7a through the medium of a gusset plate 30 which is secured to the flange and to the member. These members extend diagonally downward from the sloping floor and converge toward each other in a horizontal direction

and at their lower ends contact with the opposite sides of the web 24 of the plate 21 and are secured to such web.

It will be understood that changes may be made in the details of the several parts forming the invention without departing from the spirit and scope of the appended claims.

Having thus described the invention what I claim as new and desire to secure by Letters Patent is:—

1. In a dump car, an underframe, a sloping end floor, a member at substantially the longitudinal center line of the car and disposed vertically between said underframe and floor and connected with both, a brace connected at its upper end with said floor and extending diagonally downward therefrom and connected at its lower end with the underframe and first mentioned member.

2. In a dump car, an underframe, a sloping end floor, having an outwardly extending flange on each side of the longitudinal center line of the car, a member secured to said underframe at substantially the longitudinal center line thereof, and a brace member secured to each of said flanges and to said member.

3. In a dump car, an underframe, a sloping end floor, flanges extending outwardly from said floor and spaced apart, a member secured to said underframe and having a vertically disposed web at substantially the longitudinal center line of the car, a brace secured at one end to said flanges above said underframe and extending downwardly and outwardly therefrom and at its lower end secured to said web, said brace being widest at its upper end.

4. In a dump car, an underframe, a sloping end floor, a vertically disposed member extending between said underframe and floor at substantially the longitudinal center line of the car, a member for connecting the upper end portion of said vertically disposed member and floor, a member for connecting the lower end portion of said vertically disposed member and underframe, and a brace secured to said floor and extending downward therefrom and connected at its lower end with the last mentioned member adjacent said vertically disposed member.

5. In a dump car, an underframe, a sloping end floor, a member secured to said underframe having an upwardly extending web, a flange on said web, a vertically disposed member at substantially the longitudinal center line of said car having its lower end portion connected with said flange, a member connecting the upper end portion of said vertically disposed member and floor, and a sloping brace secured at one end to said floor and at the opposite end to said web.

6. In a dump car, an underframe, a sloping end floor, flanges projecting outwardly from said floor, a diagonal brace secured to said flanges and extending downwardly and outwardly therefrom to a point adjacent said underframe, a member connecting the lower end portion of said brace, a vertically disposed member extending between and secured to said floor, member and underframe.

7. In a dump car, a sloping end floor, an underframe, a vertically disposed member extending between and connected with said floor and underframe, and a brace extending diagonally between and connected with said floor, underframe and member, said brace being widest adjacent said floor.

8. In a dump car, an underframe, a sloping end floor, a flange on said floor on each side of the longitudinal center line of the car, a member secured to said underframe and having a web disposed vertically at substantially the longitudinal center line of the car, and a brace member extending diagonally between and secured to each of said flanges and web, said brace members converging toward said web.

In testimony whereof I affix my signature.

JOHN P. ANDERSON.