

No. 748,030.

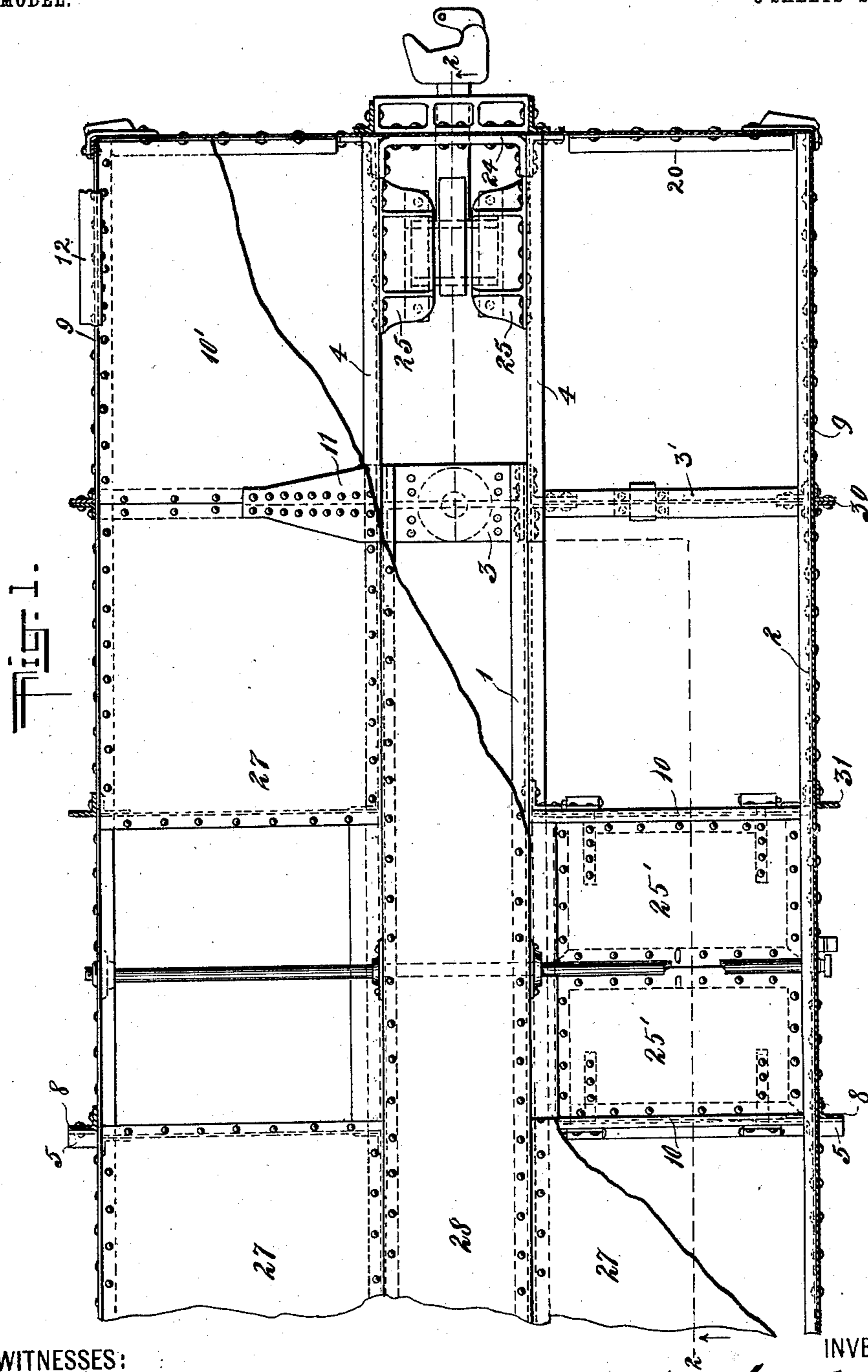
PATENTED DEC. 29, 1903.

C. VANDERBILT.  
RAILWAY CAR.

APPLICATION FILED FEB. 17, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



**WITNESSES:**

Charles Figaro

Delos Holdens.

INVENTOR

*Cornelius Vanderbilt*

BY

BY  
*Arthur R. Sheffield*  
ATTORNEYS

**ATTORNEYS**

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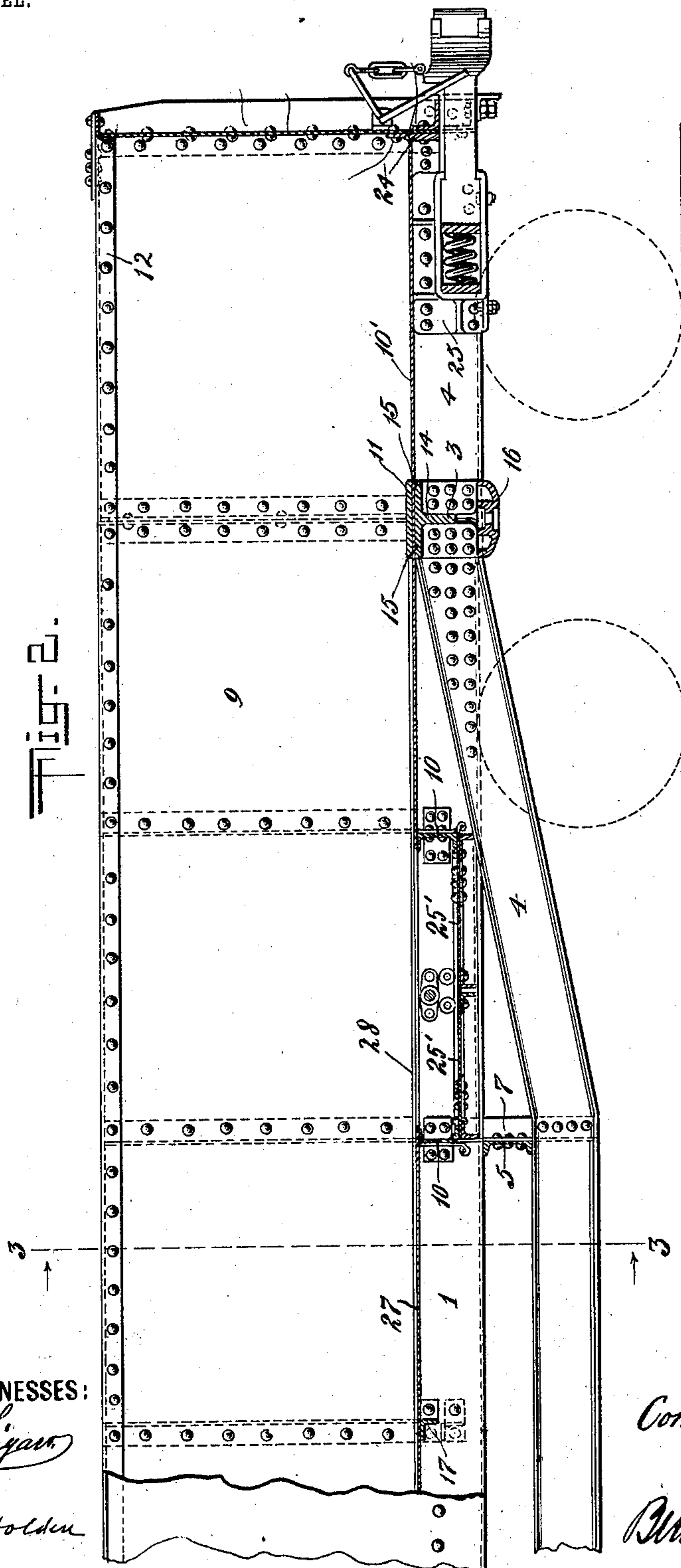
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3 SHEETS—SHEET 2.



**WITNESSES:**

Charles F. Farnsworth  
Delos Holden

INVENTOR

*Cornelius Vanderbilt*

BY

*Butts Butts Sheffield & Co.*  
ATTORNEYS.

No. 748,030.

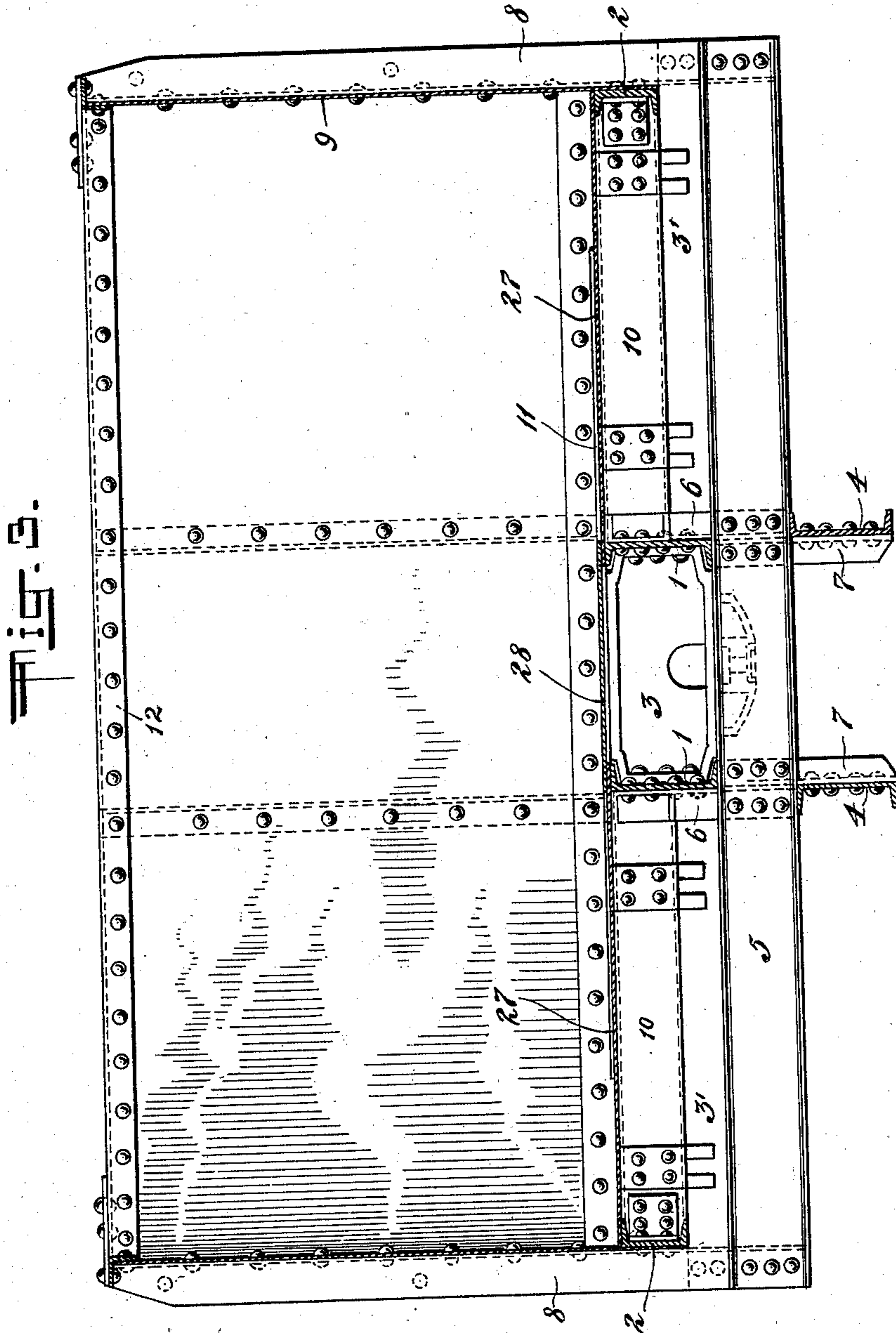
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3 SHEETS—SHEET 3.

NO MODEL.



WITNESSES:

*Charles F. Figue*  
" "  
*Delos Holden*

INVENTOR

*Cornelius Vanderbilt.*

BY

*Attys Attys Shippin Attys*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

CORNELIUS VANDERBILT, OF NEW YORK, N. Y.

## RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 748,030, dated December 29, 1903.

Application filed February 17, 1902. Serial No. 94,410. (No model.)

*To all whom it may concern:*

Be it known that I, CORNELIUS VANDERBILT, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Railway-Cars, of which the following is a full and true description.

My invention relates to an improved form of metallic car. In the construction of this car it is my aim to use wherever practicable ordinary commercial rolled-metal beams, such as channels and angles, and very few parts which need to be specially made, so that the car, in addition to being strong, durable, and simple in construction, can also be manufactured at a small cost and in the least possible time. It is obvious, however, that my invention is not limited to the use of such materials, but may include pressed metal or any other suitable material.

I have shown my invention as embodied in a gondola car; but it is not limited to this form of car, as obviously the structure herein described and claimed may be used in flat-cars, box-cars, &c., the appended claims defining the actual scope of the invention.

Certain features of frame construction which appear in the car herein shown and described are broadly claimed in an application filed by me on the 17th day of February, 1902, Serial No. 94,411.

Reference is made to the accompanying drawings, in which—

Figure 1 is a plan view, partly in section, of one half of the car, a portion of the flooring being broken away. Fig. 2 is a section on line 2 2 of Fig. 1, the flooring, however, being in position; and Fig. 3 is an enlarged section on line 3 3 of Fig. 2.

The description being confined to that half of the car which is illustrated, it will be understood that the other half is similar in all essential particulars to that which is shown.

The supporting-framework of this car, as well as the car shown in application Serial No. 94,411, comprises two longitudinal center sills 1 1, which are securely united at their ends by the bolster-pieces 3. These channels face inward, and to their flat outer faces or backs at the bolsters are secured the bent

channels 4 4, which act as tension truss members between the bolsters, but which also extend forward horizontally beyond the bolsters and carry the draft-rigging guides 25 and end spacing members 24. Between the channels 1 and 4, and preferably secured thereto by the angle-bars 6 and 7, are two transverse beams 5, which may be channels, as shown. Only one of these beams is shown, the other one being correspondingly situated in that half of the car which is not shown. These beams act as struts between the truss members 1 and 4.

The structure up to this point is the same as in the application previously referred to, the present invention relating to the features hereinafter described.

Secured to the ends of the transverse beams 5 are uprights 8. These uprights support the side sills 2 2, to which they are secured. In the case of a box-car or gondola car the uprights, which may be angle-bars, as shown, may extend above the side sills, preferably to the top of the car, and serve the additional purpose of supporting and stiffening the side walls 9 9. The I-beams 3', which form part of the bolster, the channels 10, to which the drop-bottoms 25' are hinged, and the center floor-beam 17 are secured between the side sills 2 and center sills 1. The upper surfaces of all these parts form a plane surface, upon which the end floor-plates 10' and side floor-plates 27 are laid and secured, as shown. The end floor-plates 10' are preferably of the full width of the car and extend from the bolsters to the ends of the car. The side floor-plates 27 are of a width equal to the distance from the center sills to the side sills and extend from the bolsters to the channels 10 and between the said channels on each side of the car, as shown. The center plate 28 is secured to the center sills 1 1 above the side plates 27 and extends from bolster to bolster. The bolster-piece 3 comprises upper flanges 15 15, a central web 14, and a bearing 16. The floor-plates 10' and 27 are laid directly upon the parts 3 and 3', as previously described, and the bolster is completed by a cover-plate 11, secured above the floor-plates. The side plates 9 are secured to the side sills 2 and are stiffened and supported in the

usual manner by uprights 30 and 31 and the top flanged beam 12.

I do not desire to limit myself to the exact structure shown, but also include such obvious modifications thereof as will be readily apparent to those skilled in the art.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

10 1. In a metallic car-frame, longitudinal center compression and tension members, transverse beams forming struts between said members, upright posts secured to the ends of said transverse beams and side sills secured to said upright posts, substantially as described.

2. In a metallic car-frame, a longitudinal center truss, a transverse beam forming a strut for said truss and upright posts secured

to the ends of said beam, substantially as described. 20

3. In a metallic car-frame, a longitudinal center truss composed of flanged beams, a transverse beam forming a strut for said truss, and upright posts secured to the ends of said beam, substantially as described. 25

4. In an underframe, a trussed longitudinal supporting-sill composed of tension and compression chords formed of flanged beams arranged in the same vertical plane, transverse transoms which extend between the chords of said sill and constitute struts therefor, and upright posts secured to the ends of said transoms, substantially as described. 30

CORNELIUS VANDERBILT.

Witnesses:

LOUIS A. SHEPARD,  
JAMES J. COSGROVE.