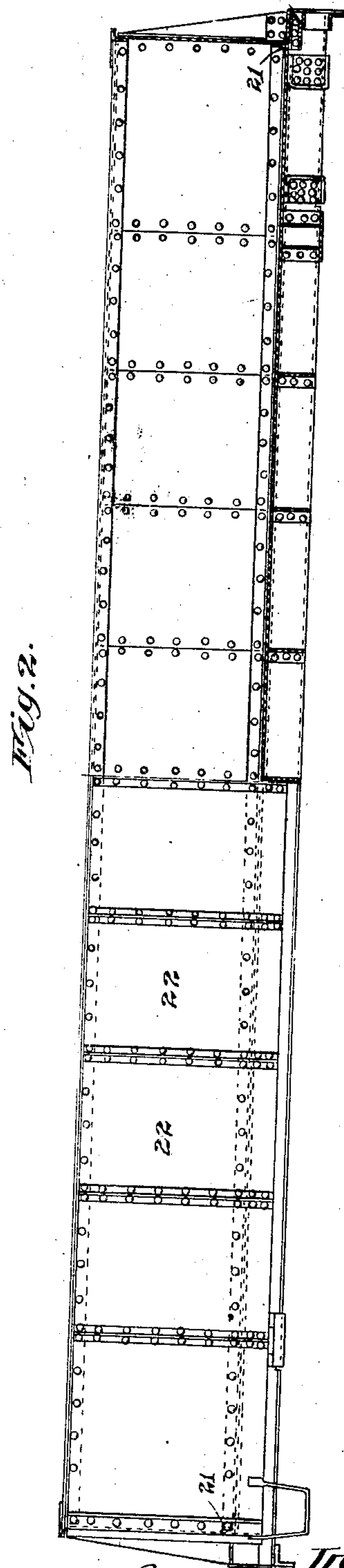
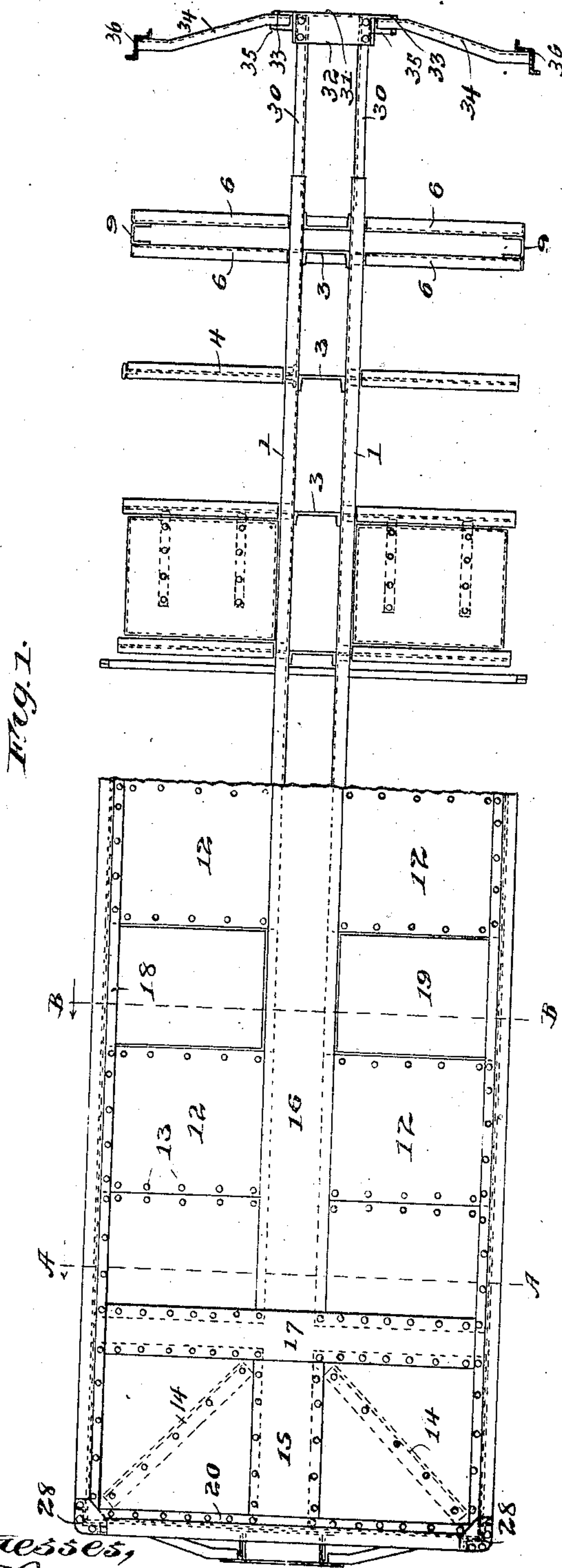


No. 842,870.

E. I. DODDS.
METALLIC GONDOLA CAR.
APPLICATION FILED JULY 6, 1905.

PATENTED FEB. 5, 1907.

2 SHEETS—SHEET 1.



Witnesses,
J. D. Mann
D. N. Ford

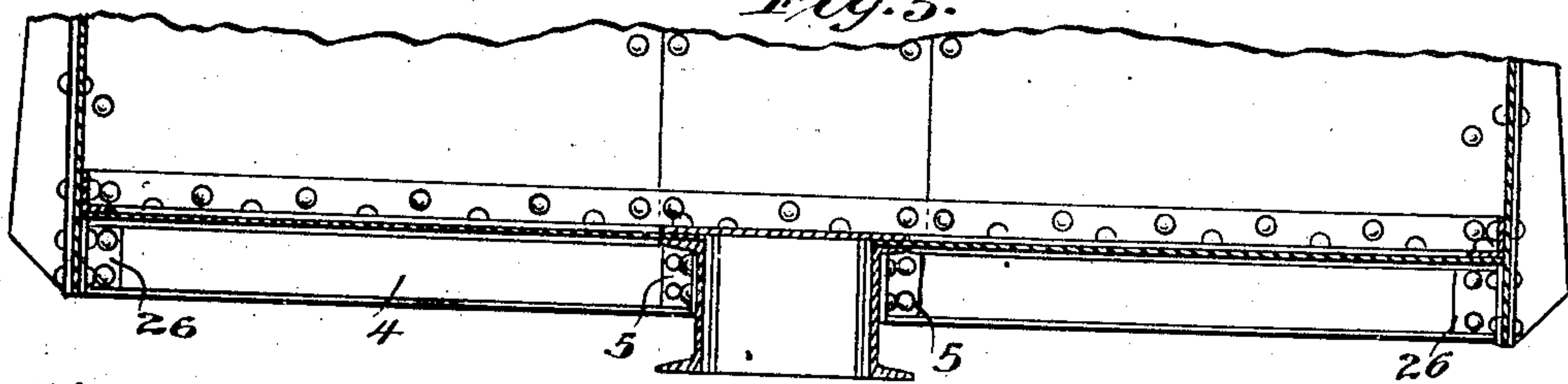
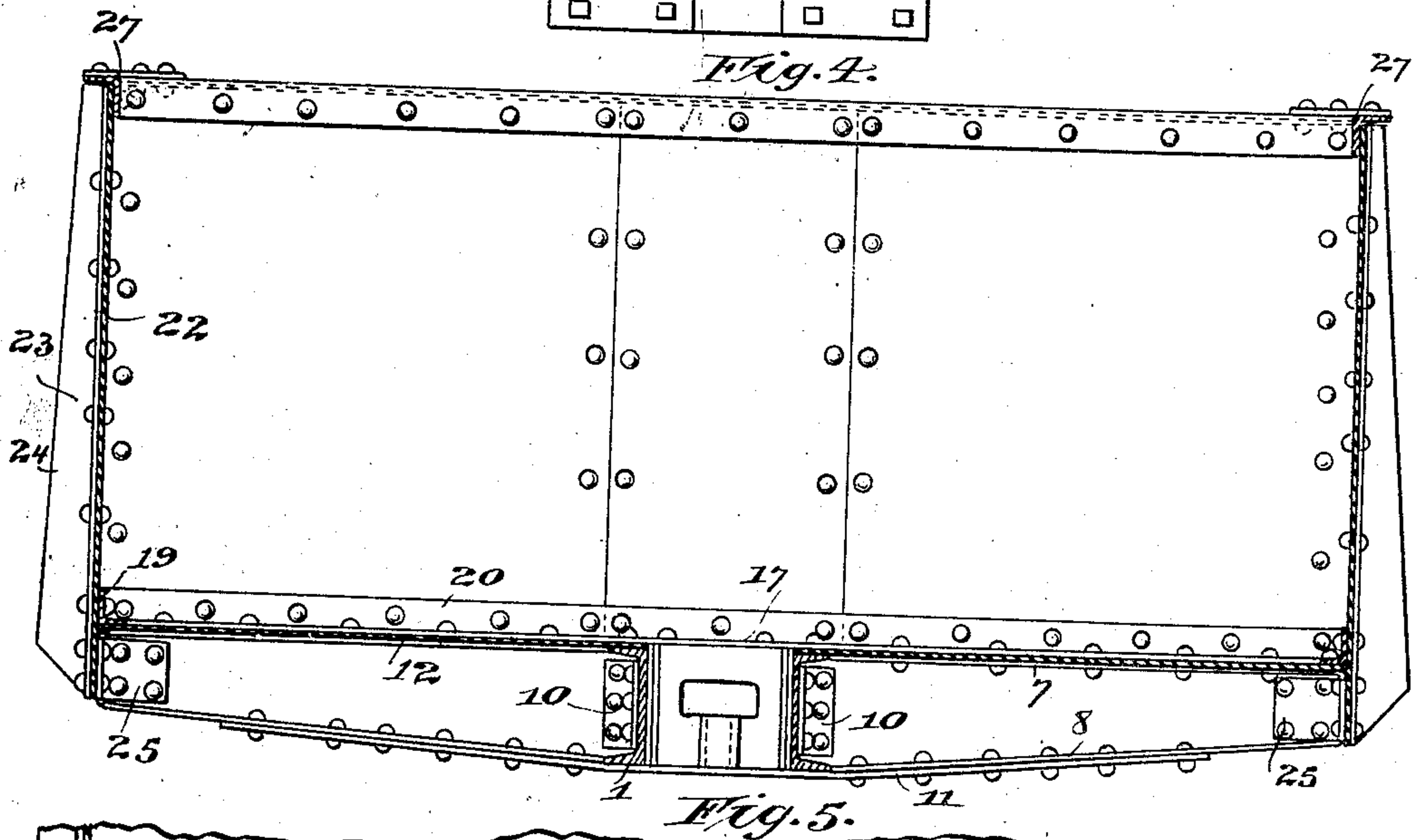
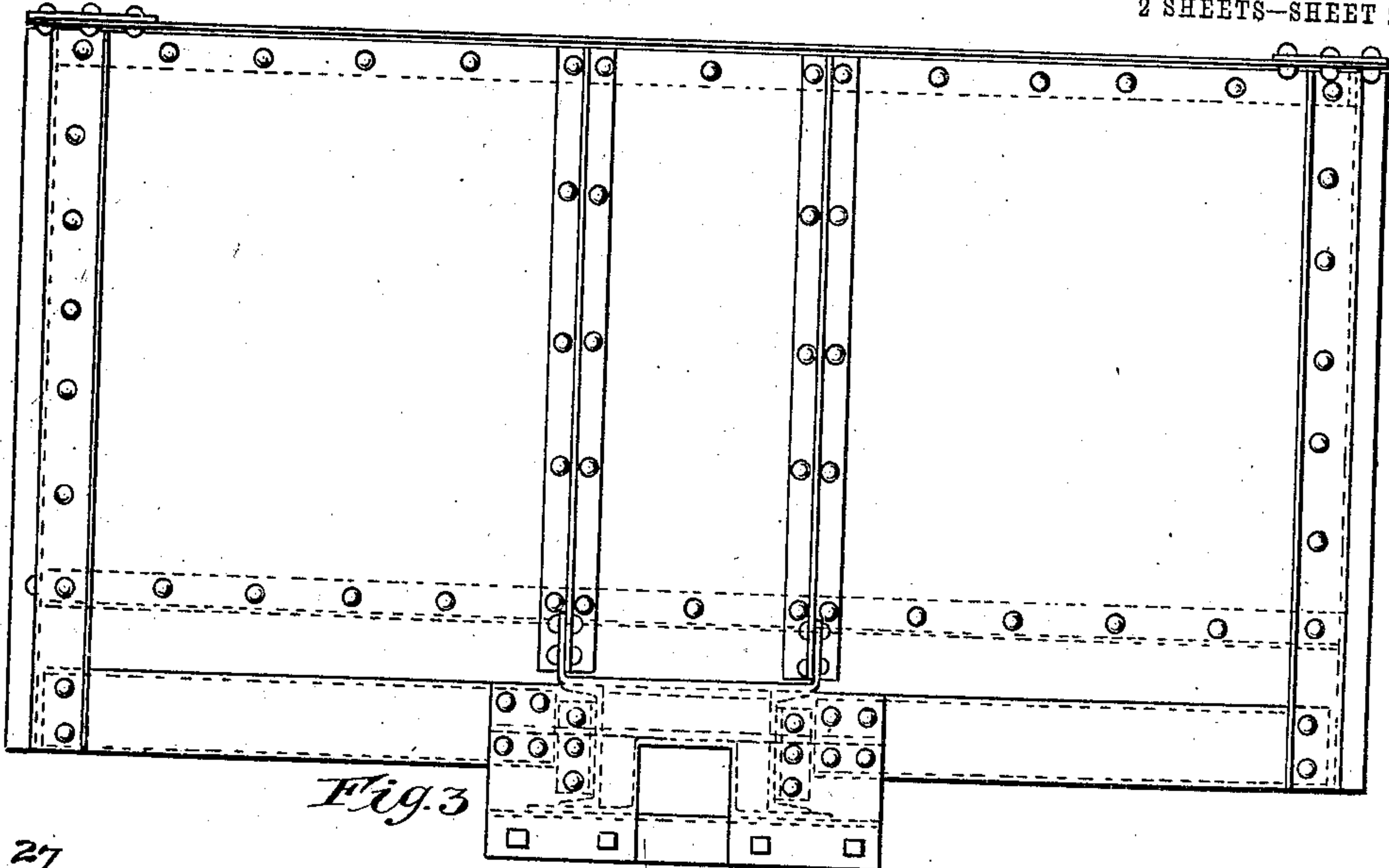
Inventor,
Ethan I. Dodds,
By *Offield, Fowler & Lathrop*
Attys

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2 SHEETS—SHEET 2.



Witnesses,
E. J. Mann
O. N. Ford

Inventor,
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UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF PULLMAN, ILLINOIS, ASSIGNOR TO THE PULLMAN COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

METALLIC GONDOLA CAR.

No. 842,810.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed July 6, 1905. Serial No. 268,303.

To all whom it may concern:

Be it known that I, ETHAN I. DODDS, a citizen of the United States, residing at Pullman, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Metallic Gondola Cars, of which the following is a specification:

My invention relates to car constructions, more particularly to steel cars of the gondola type; and my present improvements pertain to several features of construction which facilitate the repair of the car in case it is damaged by a wreck or in any other manner. To this end I build up the car out of a series of comparatively small parts, which may be readily removed for the insertion of new ones if they become bent, broken, or otherwise injured.

Another object of my invention is the provision of an improved and easily and economically manufactured corner for the car.

Various other features of value will be found in this invention by those skilled in this art.

In the accompanying drawings I have embodied one form of the invention, wherein—

The left-hand portion of Figure 1 shows a plan of the car, while the right-hand portion shows the underframe. Fig. 2 illustrates an elevation of the car, a portion of the same being shown in longitudinal central section. Fig. 3 is an end view of the car. Fig. 4 is a section of the car on the line A A, Fig. 1. Fig. 5 shows a partial section on the line B B of Fig. 1.

Referring to the drawings, 1 1 are the channel center sills, spaced apart web to web by means of short channel-sections 3. Cross-bearers or flying transoms 4 of I-section are riveted to the center sills in connection with angle-plates 5. The body-bolsters of the car comprise channel members 6 6, each having an upper and lower integral flange 7 and 8, respectively, the outer ends of the channel members being spaced apart by the short channel-sections 9 and the inner ends being secured to the center sills by means of the angle-plates 10. A compression member 11 connects the under sides of the body-bolsters and is riveted to their lower flanges, as shown in Fig. 4.

The floor-plates 12 of the car are secured by rivets 13 to the flanges of the cross-bearers, body-bolsters, and center sills, and the end

floor-plates are stiffened by means of diagonal angle-plates 14 on their under side. A comparatively short plate 15 is connected to the flanges of the draft-sills by means of rivets passing through the floor-plates, as well as the plate 15, while a central longitudinal plate 16 extends from bolster to bolster and is secured to the flanges of the center sills by means of rivets passing through the floor-plates. The transverse tension member 17 is placed over the body-bolsters and is fastened to their flanges by means of rivets passing through the floor-plates. Angle-bars 18, 19, 20, and 21 extend around the outer edges of the floor and are secured to the floor-plates and to the sides of the car. The sides 22 extend below the floor-plates, overlapping the ends of the cross-bearers and body-bolsters. The side stakes 23, which are constructed by cutting on the bias the web of an I-beam, each have a tapering flange 24, extending transversely to the car, as is illustrated in Fig. 4. These side stakes extend down as far as do the side plates of the car. The side plates, flanges of the side stakes, and the angle-plates 25 are secured together by the same rivets, the other faces of the angle-plates 25 being fastened to the body-bolsters. The cross-bearers 4 are riveted to the side plates and flanges of the side stakes in a similar manner, using angle-plates 26. The sides and ends of the car have a coping angle-bar 27, the corners being supplied with plates 28, riveted to the coping angle-bars.

Draft-sills 30, which are smaller channel-bars than the center sills, are attached to the ends of the latter, which extend beyond the body-bolsters. The outer ends of the draft-sills are riveted to the face-plate 31, which has a flange 32 bent over, as shown in Fig. 1, and also has lateral portions 33, which are secured to the end sills 34, the outer ends of the latter being connected to the corner-plates of the car 36, each of which comprises a channel-plate whose web has been bent to an angle of ninety degrees. The bar 35, which may be of any appropriate shape, is also secured to the inner ends of the sills 34, so as to make a stronger construction.

It is apparent from the above description that I have devised a car made up of comparatively small parts and that the same, due to this peculiar structure, can be re-

paired at slight expense of time and money. It is also evident that I have not sacrificed the strength of the car to obtain such object, but that I have devised a construction which
5 combines strength, rigidity, and economy of manufacture and maintenance. Owing to the fact that the side plates and stakes extend below the floor and overlap the ends of the cross-bearers and body-bolsters, the
10 strain put upon the former is transmitted to the latter, where it properly belongs.

To those skilled in the art many changes in the details of the construction will be obvious, and the modified constructions will
15 still fall within the substance of the invention as defined in the following claims.

This patent is intended to embrace only so much of the disclosure made herein as is covered by the following claims.

20 I claim—

1. The combination in a car, of two spaced draft-sills, a flanged face-plate, said draft-sills being attached to said flange, and two transverse end-sill members secured to said
25 face-plate, substantially as described.

2. The combination in a car, of two spaced channel draft-sills, a flanged face-plate, the top flanges of said draft-sills being riveted to the flange of said face-plate and two trans-
30 verse channel-beams secured to said plate, substantially as described.

3. The combination in a car of two spaced channel draft-sills, a flanged face-plate, said draft-sills being riveted to said flange, two
35 channel end sills riveted to said flanged face-plate, and a strengthening member riveted to and connecting the inner ends of said end sills, substantially as described.

4. A car, having a plurality of T-beam side stakes in combination with a plurality of side
40 plates, each extending between and fastened to two adjacent side stakes, substantially as described.

5. A car having a plurality of cross-bearers comprising I-beams and a plurality of
15 floor-plates, each floor-plate extending between, supported by, and fastened to flanges of two adjacent cross-bearers, substantially as described.

6. In a railway-car, the combination of
50 center sills, body-bolsters and cross-bearers fastened to said center sills, side plates covering the ends of said bolsters and cross-bearers, and a side stake secured to the end
of each bolster and cross-bearer, said side
55 plates extending between and fastened to two adjacent side stakes, substantially as described.

I HAN I. DODDS.

Witnesses:

SAMUEL N. POND,

FREDERICK C. GOODWIN.