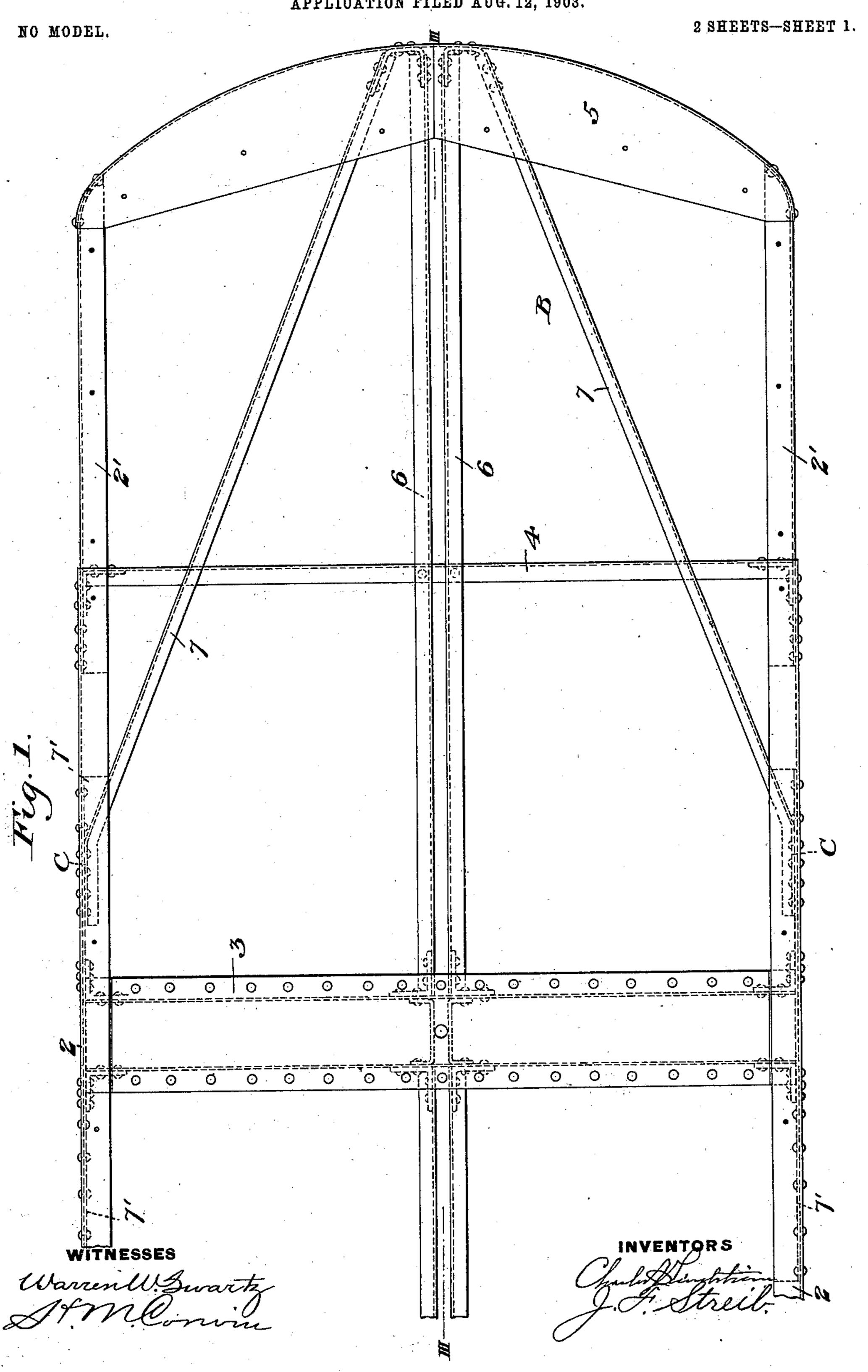
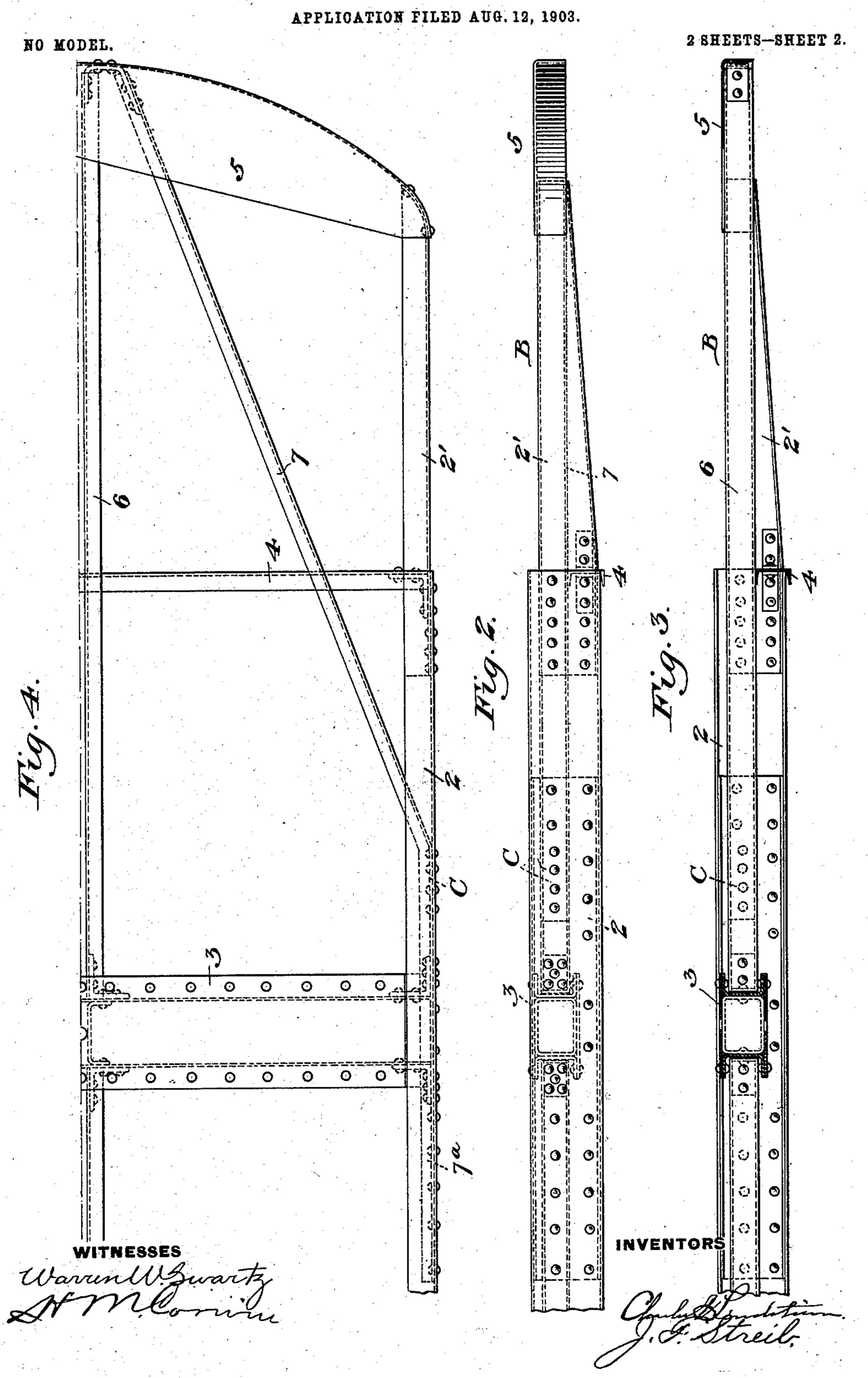
C. A. LINDSTRÖM & J. F. STREIB. CAR FRAME.

APPLICATION FILED AUG. 12, 1903.



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United States Patent Office.

CHARLES A. LINDSTRÖM, OF ALLEGHENY, AND JOHN F. STREIB, OF AVALON, PENNSYLVANIA, ASSIGNORS TO PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

CAR-FRAME.

SPECIFICATION forming part of Letters Patent No. 750,290, dated January 26, 1904.

Application filed August 12, 1903. Serial No. 169,245. (No model.)

To all whom it may concern:

Be it known that we, Charles A. Lindström, of Allegheny, and John F. Streib, of Avalon, Allegheny county, Pennsylvania, have invented a new and useful Car-Frame, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in plan view a part of the underframe of the car constructed in accordance with our invention. Fig. 2 is a side elevation. Fig. 3 is a vertical longitudinal section on the line III III of Fig. 1, and Fig. 4 is a plan view showing a modification of the frame.

The purpose of our invention is to provide a strong and stiff construction for the underframe of steel cars, particularly such as are

20 used for street-railways.

The invention in its preferable form is shown in the drawings, in which 2 2 are the side sills of the car-frame, 3 is the bolster, and 4 is the end sill, which extends between the side sills.

The frame B of the platform is constituted by prolongations 2' of the side sills and by a platform end sill 5. The center sill or draft-sill 6 extends from the platform end sill 5 rearwardly over the end sill 4 and to the bolster.

7 7 are braces which extend diagonally from the platform end sill 5 over the end sill 4 to the side sills, to which they are attached at C at or near the bolster, so as to reinforce and strengthen the side sills at the bolster. Each of these braces 7 may be made integral or in connected sections, and, as shown in Fig. 4, they may extend, as at 7°, along the side sills to the rear of the bolster, so as to reinforce and strengthen the side sills at these places.
Where the braces 7 are not extended back of the bolster, we prefer to reinforce the side sills at the bolster by flanged pieces 7', preferably channel-bars, which constitute extensions of the braces. They are fixed to the

of the bolster connection, as shown in Fig. 1.

The platform end sill 5 is preferably constituted of a flanged metal plate, the vertical

45 side sills and extend thereon forward and back

flange of which is at its forward margin, as shown.

The placing of the draft-sill 6 and braces 7 over end sill 4 transfers to the latter the weight of the platform, so that the platform is supported by the end sill; and a strong and very desirable construction is thus afforded. 55 The bolster, side sills, draft-sill, and braces are made of flanged metal beams, the preferable shape of which is shown in the drawings.

Within the scope of our invention as defined in the claims the construction may be 60 modified by those skilled in the art, since

What we claim is—

1. A metal car-frame having side sills, an end sill, and a platform-frame comprising beams supported by and above the end sill; 65 substantially as described.

2. A metal car-frame having side sills, an end sill, and a platform-frame comprising a draft-sill extending over the end sill and supported thereby; substantially as described.

3. A metal car-frame having side sills, an end sill, and a platform-frame comprising a draft-sill and braces extending over the end sill and supported thereby; substantially as described.

4. A metal car-frame having side sills, an end sill, and a platform-frame comprising diagonal braces extending from the platform end sill over the end sill of the car-frame and fixed to the side sills near the bolster; sub- 80 stantially as described.

5. A metal car-frame having side sills, an end sill, a platform-frame comprising diagonal braces extending from the platform end sill and fixed to the side sills near the bolster 85 and having extensions reinforcing the side sills and extending to the rear of the bolster; substantially as described.

In testimony whereof we have hereunto set our hands.

CHARLES A. LINDSTRÖM. J. F. STREIB.

Witnesses:

JOHN MILLER, H. M. CORWIN.