

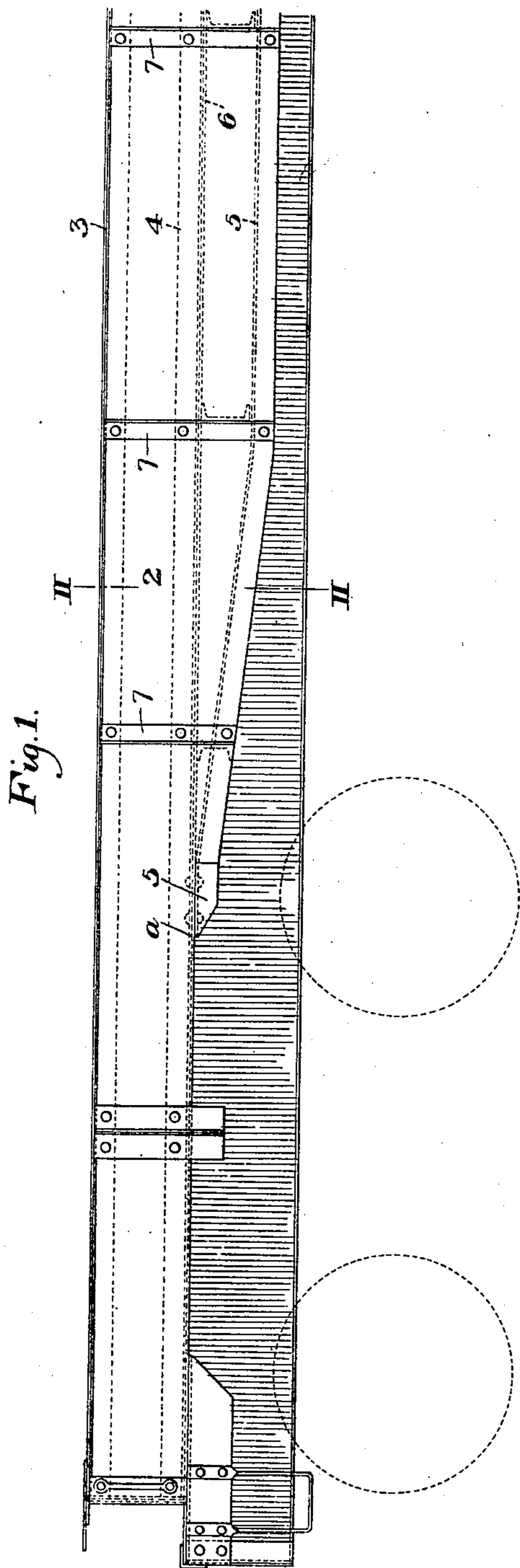
No. 710,176.

A. B. BELLOWS.
GONDOLA CAR.

Patented Sept. 30, 1902.

Application filed Dec. 21, 1901.)

(No Model.)



WITNESSES

Warren W. Swartz
J. M. Corwin

Fig. 4.

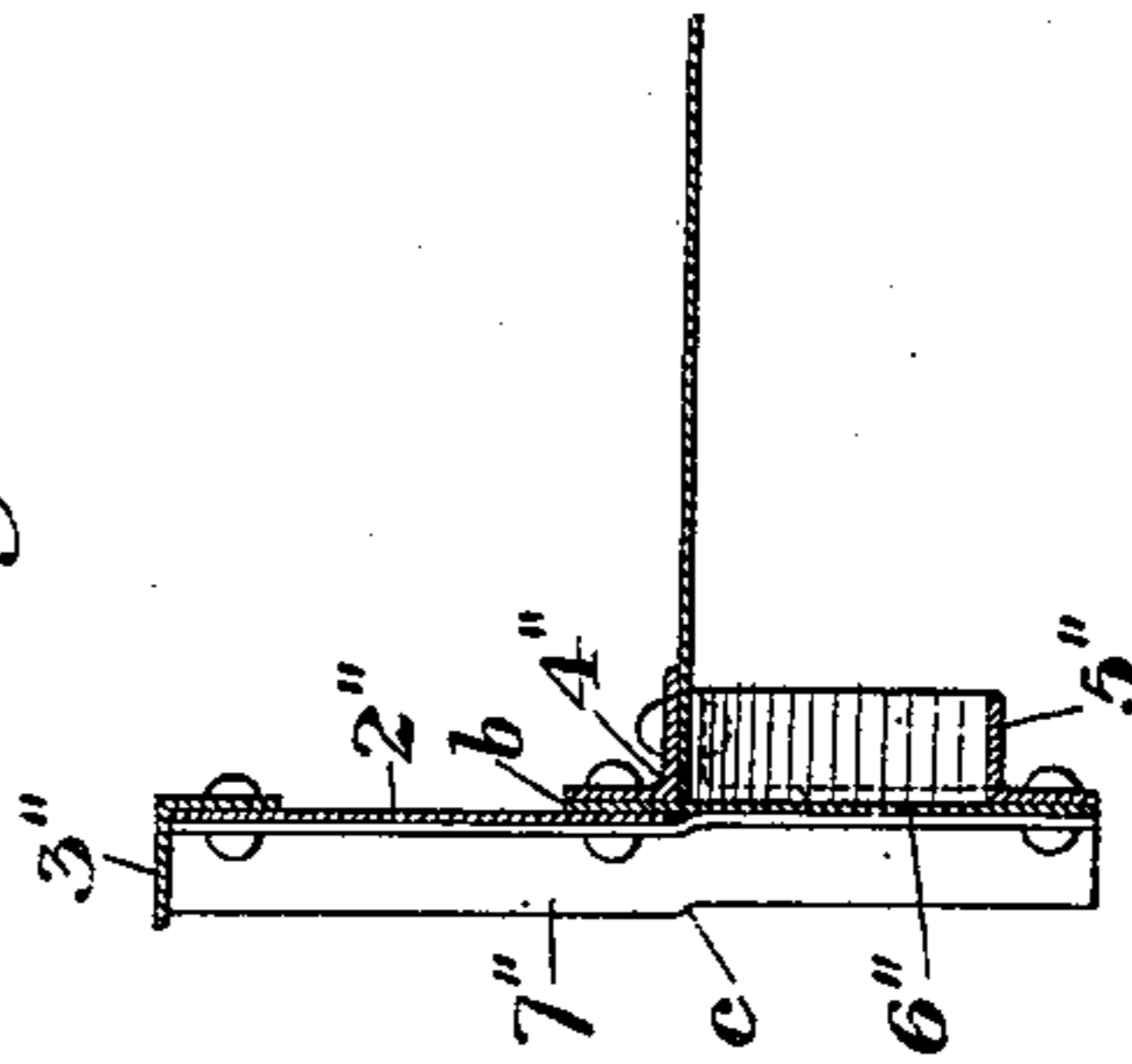


Fig. 2.

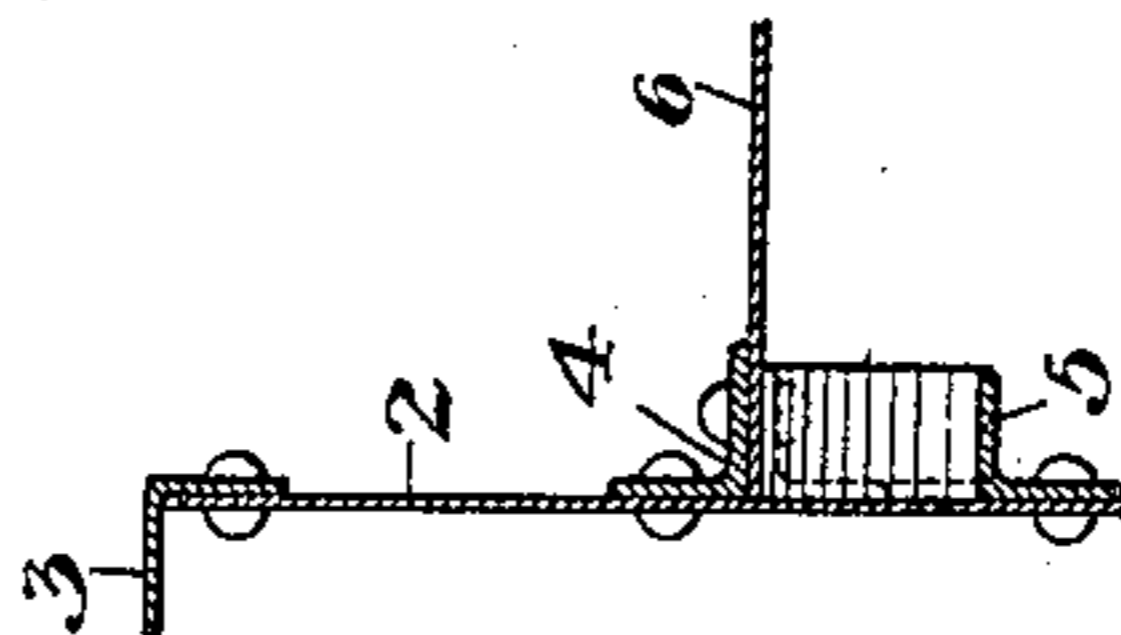
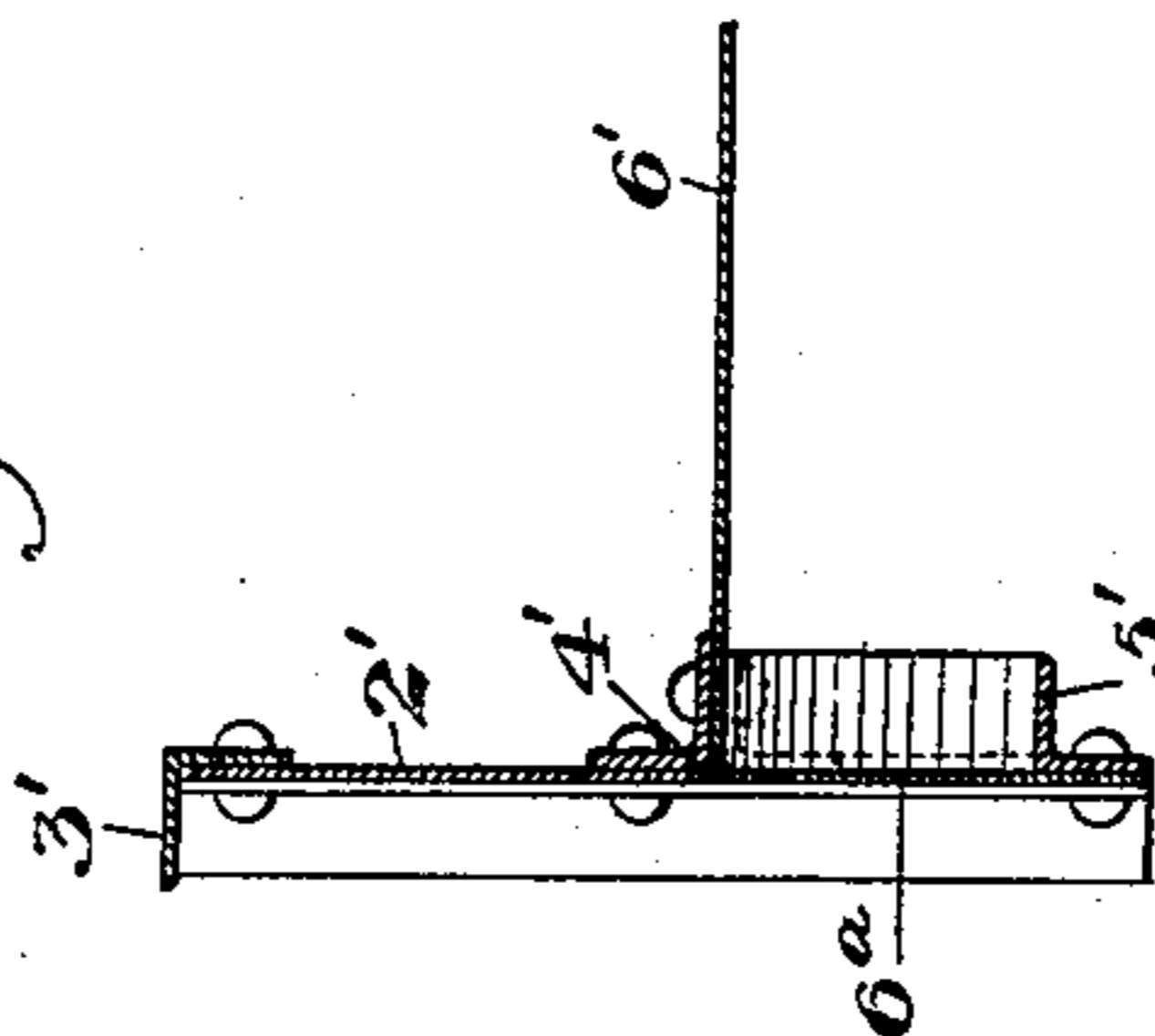


Fig. 3.



INVENTOR

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UNITED STATES PATENT OFFICE.

ARTHUR B. BELLOWS, OF PITTSBURG, PENNSYLVANIA.

GONDOLA CAR.

SPECIFICATION forming part of Letters Patent No. 710,176, dated September 30, 1902.

Application filed December 21, 1901. Serial No. 86,784. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. BELLOWS, of Pittsburgh, Allegheny county, Pennsylvania, have invented a new and useful Gondola Car, 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 is a partial side elevation of a gondola car constructed in accordance with my invention. Fig. 2 is a section on the line II II of Fig. 1; and Figs. 3 and 4 are views similar to Fig. 2, showing modified forms of construction.

My invention relates to metallic gondola cars and is designed to afford a cheap and simple construction by means of which the plate sides will be strengthened and the use of side sills avoided.

In the drawings, referring to the form of Figs. 1 and 2, 2 represents the side of the car, consisting of a plate or plates having a cover angle 3 riveted along its upper edge, an intermediate angle 4, and a third angle 5, which extends along the lower edge of the side plates through those portions where they are extended below the floor-line. The end portions of the angle 4 extend along the floor-line from the end of the body to the point *a*, from which point the plates extend below the floor-line to give a truss formation which strengthens the central portions of the sides. At the point *a* on each side of the car center the end portions of the angles 5 are secured by rivets, which pass through the floor-plates 6 and the angle 4, and thence extend downwardly and horizontally, being secured by rivets passing through the vertical flanges and through the downwardly-extending parts of the side plates. The strengthening members 7 for the sides are riveted to the sides and preferably to each of the three angles 3, 4, and 5.

Instead of extending the side plates downwardly to form the trussed portions, I may use the construction shown in Fig. 3, wherein the plates 2' extend only to the floor-line throughout the car-body, the depending truss portion being formed by bending the outer portions of the floor-plates 6' to form depending flange portions 6^a in the plane of the sides 2'. In this case the lower angle 5' is riveted to the lower edge portion of the flange 6^a.

In the form of Fig. 4 the side plates 2'' terminate at the floor-line, and the truss portion

is formed by a plate 6'', which laps over the side plates, as shown at *b*, the securing-rivets for the vertical flange of the angle 4'' passing through the overlapping portions of the plates 2'' and 6''. In this case the strengthening members 7'' are offset slightly, as shown at *c*, in order to fit against the side plate and the truss-plate.

The advantages of my invention result from the use of the depending plate-truss used in connection with the gondola-car side, since a strong, stiff, and light construction is thereby afforded.

I claim—

1. A gondola car having the sides terminating at substantially the floor-line in the end portions of the car, plate extensions of said sides extending below the floor-line in the central portion of the car, and an angular flange extending along the lower edge of the truss extension; substantially as described.

2. A gondola car having side plates terminating at the floor-line in the end portions of the car, said car sides having upper and lower parallel angular flanges, the floor being secured to the lower of said flanges, plate extensions for the sides in the central part of the car, and an angular flange on such extension; substantially as described.

3. A gondola car having an angle secured along the top of the side, an angle secured to the interior of the side at the floor-line, plate extensions for the side in the intermediate part of the car, and angles riveted along the lower edge portions of the truss extensions; substantially as described.

4. A steel car having depending side extensions consisting of flanged-down floor-plates, and plate sides secured to the edge portions of said flanged-down floor-plates; substantially as described.

5. A gondola car having floor-plates provided with depending side flanges in the planes of the car side; substantially as described.

In testimony whereof I have hereunto set my hand.

ARTHUR B. BELLOWS.

Witnesses:

H. M. CORWIN,
G. B. BLEMING.