

No. 726,499.

PATENTED APR. 28, 1903.

A. B. BELLOWS.
STEEL CAR CONSTRUCTION.
APPLICATION FILED APR. 3, 1900.

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NO MODEL.

Fig. 1.

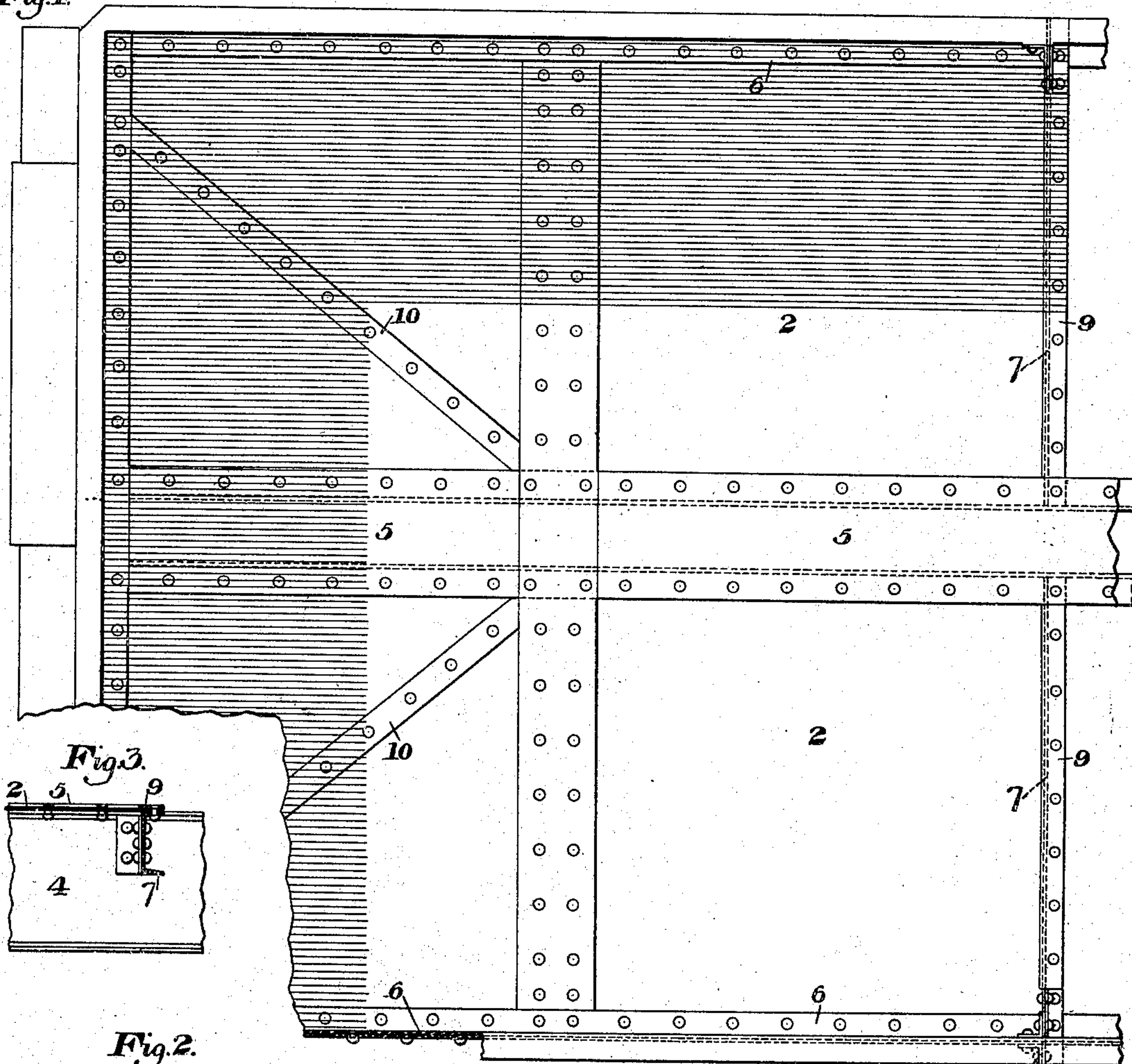


Fig.3.

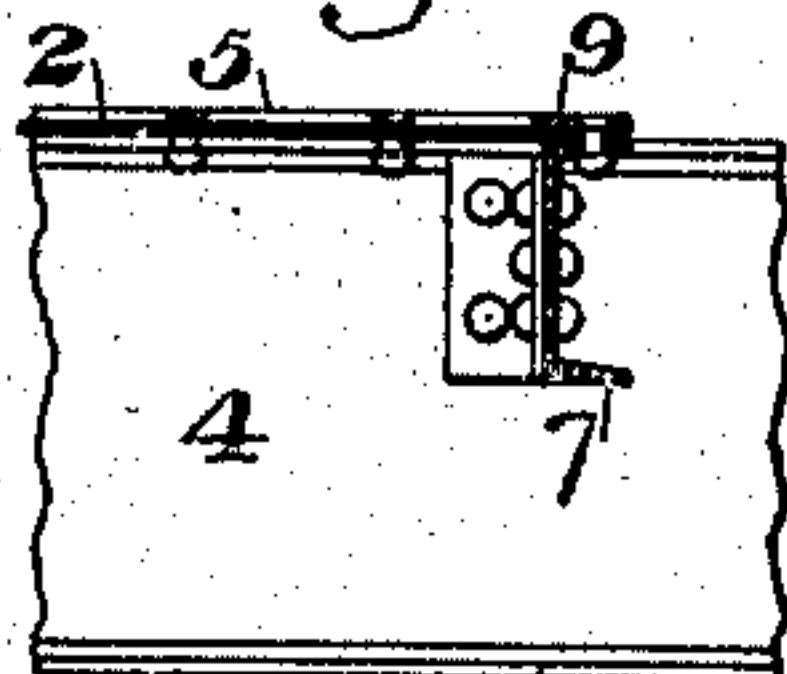
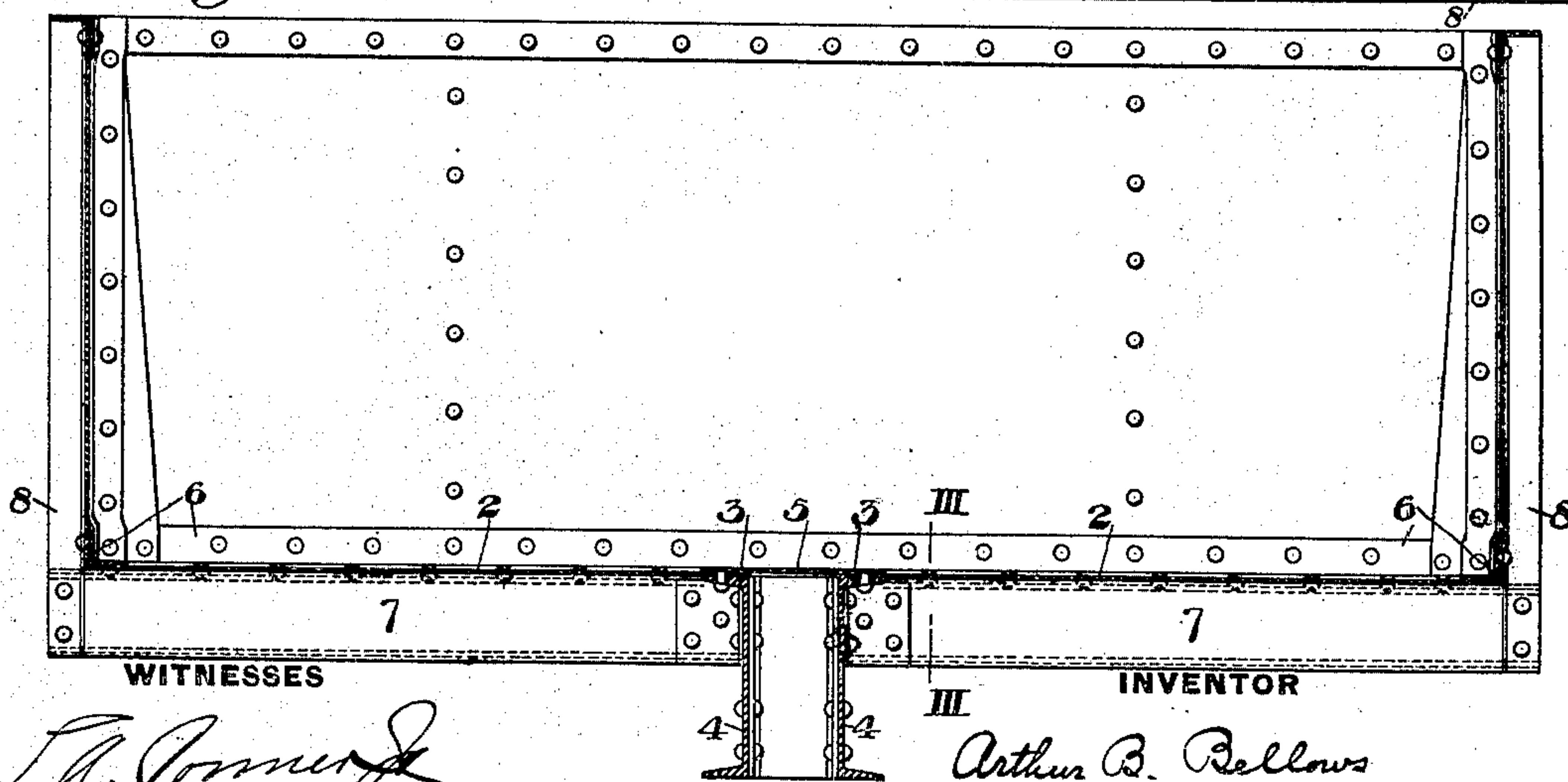


Fig. 2.



WITNESSES

INVENTOR

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STEEL-CAR CONSTRUCTION

SPECIFICATION forming part of Letters Patent No. 726,499, dated April 28, 1903.

Application filed April 3, 1900. Serial No. 11,337. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. BELLOWS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Steel-Car Construction, 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 top plan view, partly broken away, of the end portion of a steel car constructed in accordance with my invention. Fig. 2 is a vertical cross-section of the same, and Fig. 3 is a detail cross-section on the line III III of Fig. 2.

Heretofore in the construction of steel cars the heads of the rivets by which the floor-plates are secured to the under structure have projected above the floor. This is a serious drawback to these cars, for the reason that the rivet-heads interfere with the shoveling of material from the car, the heads of the rivets stopping the shovel as it is pushed along. My invention overcomes this difficulty; and it consists in providing the rivets with flat heads and countersinking these heads within additional plates or strips overlying the floor-plate.

Referring to the drawings, in which I show my improvement as applied to a car of the type shown in my Patent No. 644,890, dated March 6, 1900, 2 2 represent the floor-plates, the inner ends of which are secured to the flanges 3 3 of the channels 4 4, which make up the center sill of the car. The inner edges of these plates are preferably flush with the edges of the channel-webs, and over their inner portions extends a central cover-plate 5, within which the flat heads of the securing-rivets are countersunk. These rivets which secure the cover-plate extend also through the inner portions of the floor-plates and through the flanges of the channels. The outer portions of the floor-plates are secured

to the girder sides of the car by longitudinal angles 6, within which the inner flat heads of the securing-rivets are countersunk. The cross-sills 7, which consist of channels secured at their inner ends to the center sill and at their outer ends to the vertical strengthening members 8, are secured to the floor by rivets which extend through a transverse cover-plate 9, which preferably extends across the floor and contains the flat countersunk heads of the securing-rivets. The longitudinal cover-plate 5 is preferably divided into separate sections, between the ends of which the cross cover-plates extend.

Additional diagonal strengthening members which I employ beneath the end portion of the car are secured to the floor by rivets which extend through the diagonal cover-strips 10, the flat heads of the rivets being countersunk within these strips.

The advantages of my invention will be apparent to those skilled in the art, since the projecting heads of the rivets above the floor-plates are done away with and a construction is provided which will allow the movement of the shovel freely over the floor.

Many variations may be made in the form and construction of the car and its floor without departing from my invention.

I claim—

A steel car having separate cover-plates lying on and extending transversely of the floor to receive the countersunk heads of the rivets, and rivets securing the floor to the under structure, said rivets having countersunk heads within the cover-plates; substantially as described.

In testimony whereof I have hereunto set my hand.

ARTHUR B. BELLOWS.

Witnesses:

M. S. MURPHY,
GEO. B. BLEMING.