

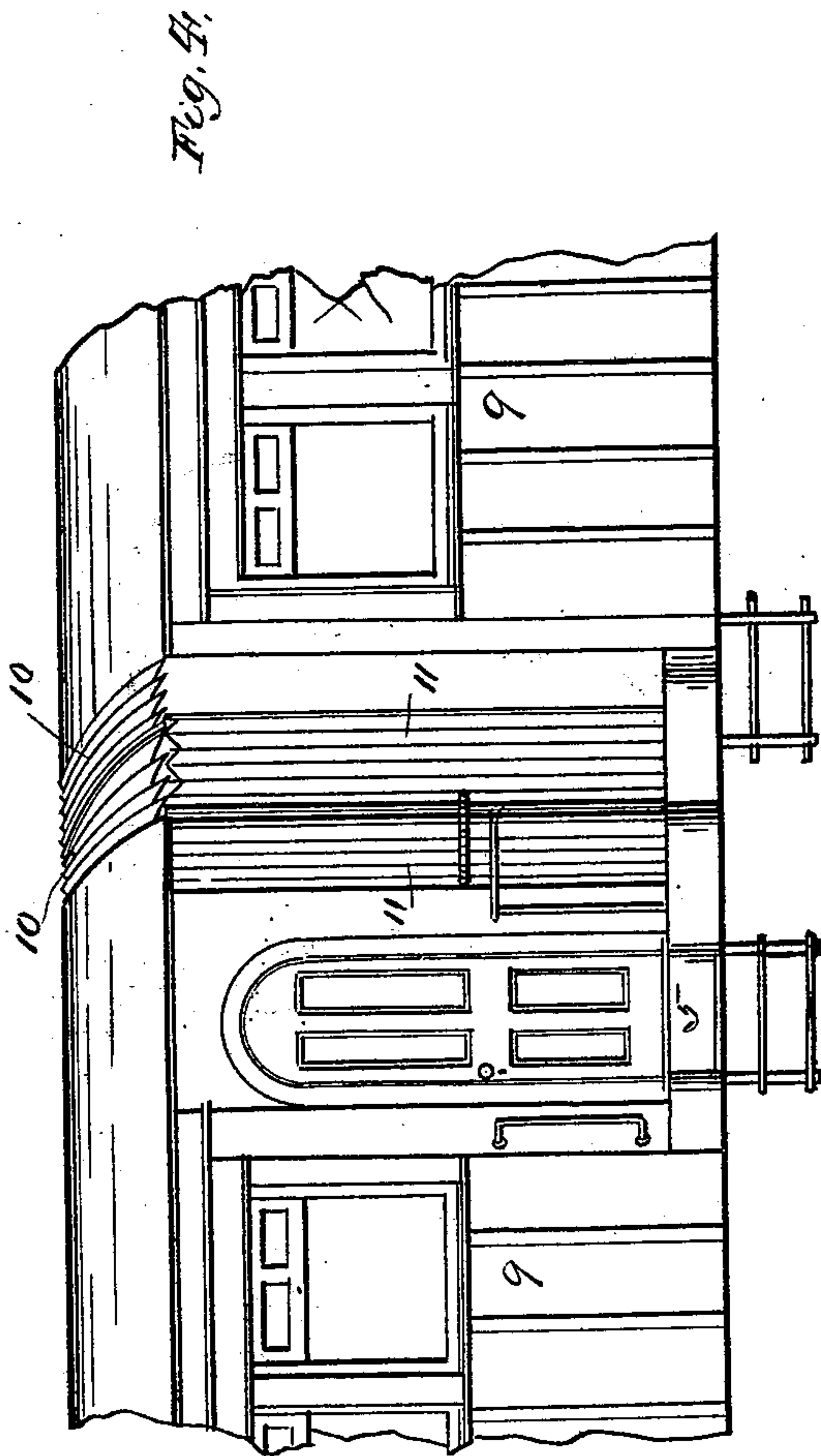
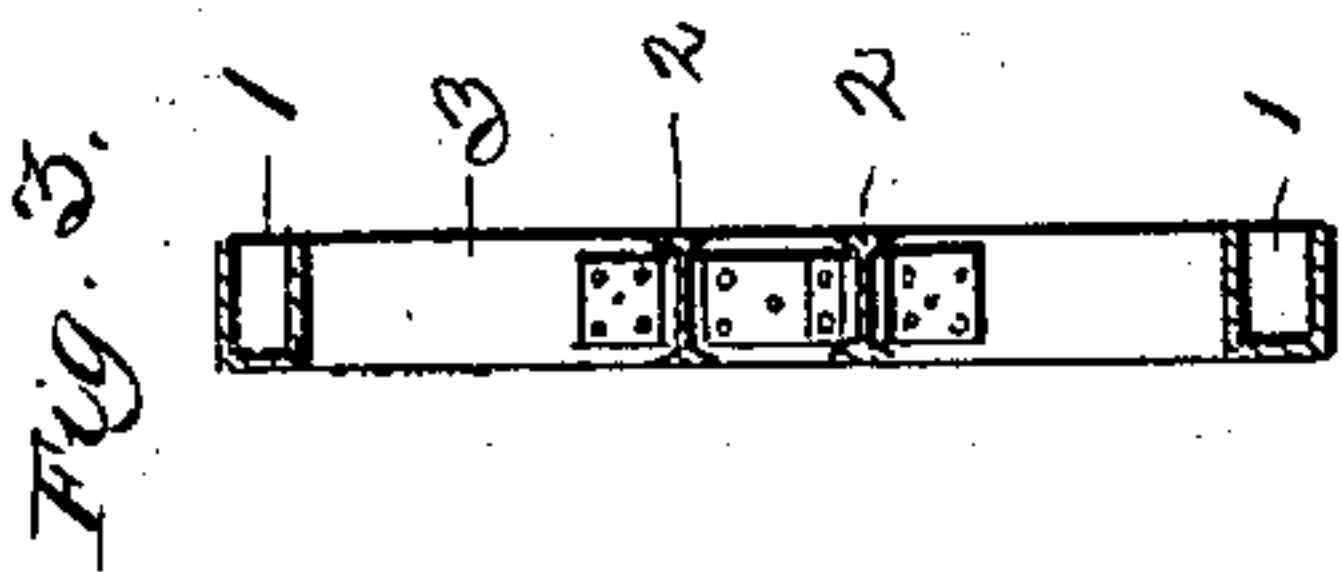
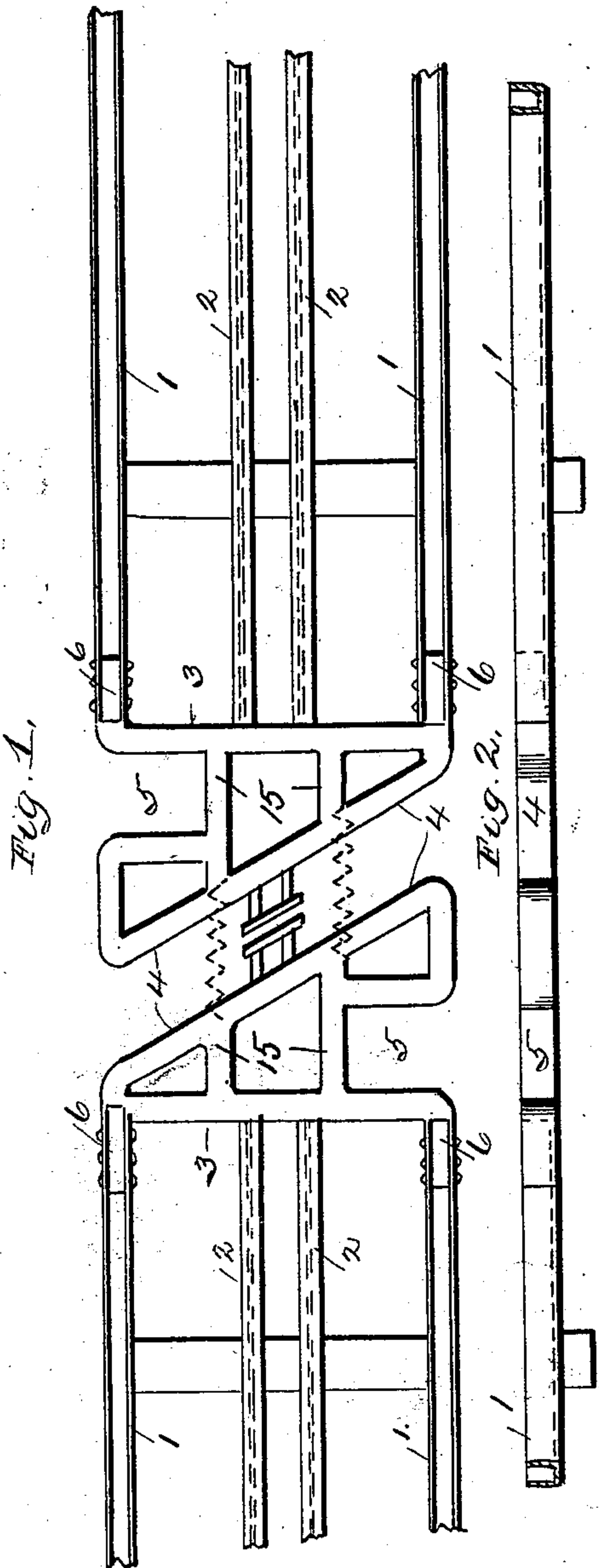
(No Model.)

L. M. WORDEN.

SAFETY NON-TELESCOPING RAILWAY CAR.

No. 514,142.

Patented Feb. 6, 1894.



Witnesses:  
M. E. Harrison.  
J. A. Hervey.

Inventor.  
L. M. Worden  
Rev. O. D. Lewis  
att'y.



# UNITED STATES PATENT OFFICE.

LIBERTY M. WORDEN, OF PITTSBURG, PENNSYLVANIA.

## SAFETY NON-TELESCOPING RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 514,142, dated February 6, 1894.

Application filed August 30, 1893. Serial No. 484,415. (No model.)

*To all whom it may concern:*

Be it known that I, LIBERTY M. WORDEN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Safety Non-Telescoping Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved safety non-telescoping railway car; and consists in forming the platforms or the adjoining ends of the cars beveled or inclined in a manner that in a collision the one car will slide past the other, together with certain details of construction and combination of parts as will be fully described hereinafter.

In the accompanying drawings—Figure 1, is a plan view of a portion of two railway cars provided with angular platforms, which are constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is an end sectional elevation of my improved frame for railway cars. Fig. 4 is a side elevation of a portion of two railway cars showing the angular platforms, and the manner of vestibuling the platforms.

To put my invention into practice I construct the frame of the car in any desired manner, and of any suitable material, but prefer to use the construction shown at Figs. 1, 2, and 3 on the drawings, which consists of two U shaped metal girders 1, arranged beneath each side of the car, and two parallel I beams 2 arranged between the girders 1, and the ends of each securely attached to a strong metal angular structure supporting the platforms of the cars. These platform supports 3 are constructed of iron or steel, and are formed with an angular or inclined face 4 at the front, and a recess or opening 5 at one side in which the stairs leading from the cars are arranged. These supports are attached to the girders 1, and I beams 2 by means of rivets or bolts in any well known manner, and the said supports 3 properly braced by integral portions 15 arranged parallel to the length of the car. The body of the car 9 is built upon this frame, and the

cars may be vestibuled as shown at Fig. 4 on the drawings.

By thus forming the platforms of the cars in the manner described, the same will prevent the telescoping of the coaches should a collision or accident occur, as their peculiar shape or build would force them apart and away from each other, instead of crushing together with such disastrous results as we have from accidents to the most improved railroad coaches now in general use.

Statistics show that over eighty per cent. of the loss of life and property in railway collisions is the result of telescoping of the cars, which is nearly always followed by fire. This great loss may be reduced by the use of cars constructed in the manner described.

The angular frames as shown are of skeleton form and the longitudinal bars 15 thereof together with the longitudinal beams 1, 2 provide a very strong structure, capable of sustaining the shock of collisions and preventing telescoping of the cars.

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

1. A railway car having an angular platform frame at its end formed with an inclined side and with a lateral opening 5 for the steps, said frame being attached to the end of the car and projecting therefrom, substantially as described.

2. A railway car having an angular platform frame at its end formed with an inclined side 4, said frame being skeleton in form and having a lateral opening 5 at one side for the steps, substantially as described.

3. A railway car having the longitudinal side beams 1, 1 and the central beams 2 also running lengthwise of the car and the angular platform secured at the end of the beams, said platform being of skeleton form and comprising an inclined side 4, and the cross bars 15 15 extending longitudinally of the car, substantially as described.

In testimony that I claim the foregoing I hereunto affix my signature this 24th day of June, A. D. 1893.

LIBERTY M. WORDEN. [L. S.]

In presence of—

JAS. J. MCAFEE,  
M. E. HARRISON.