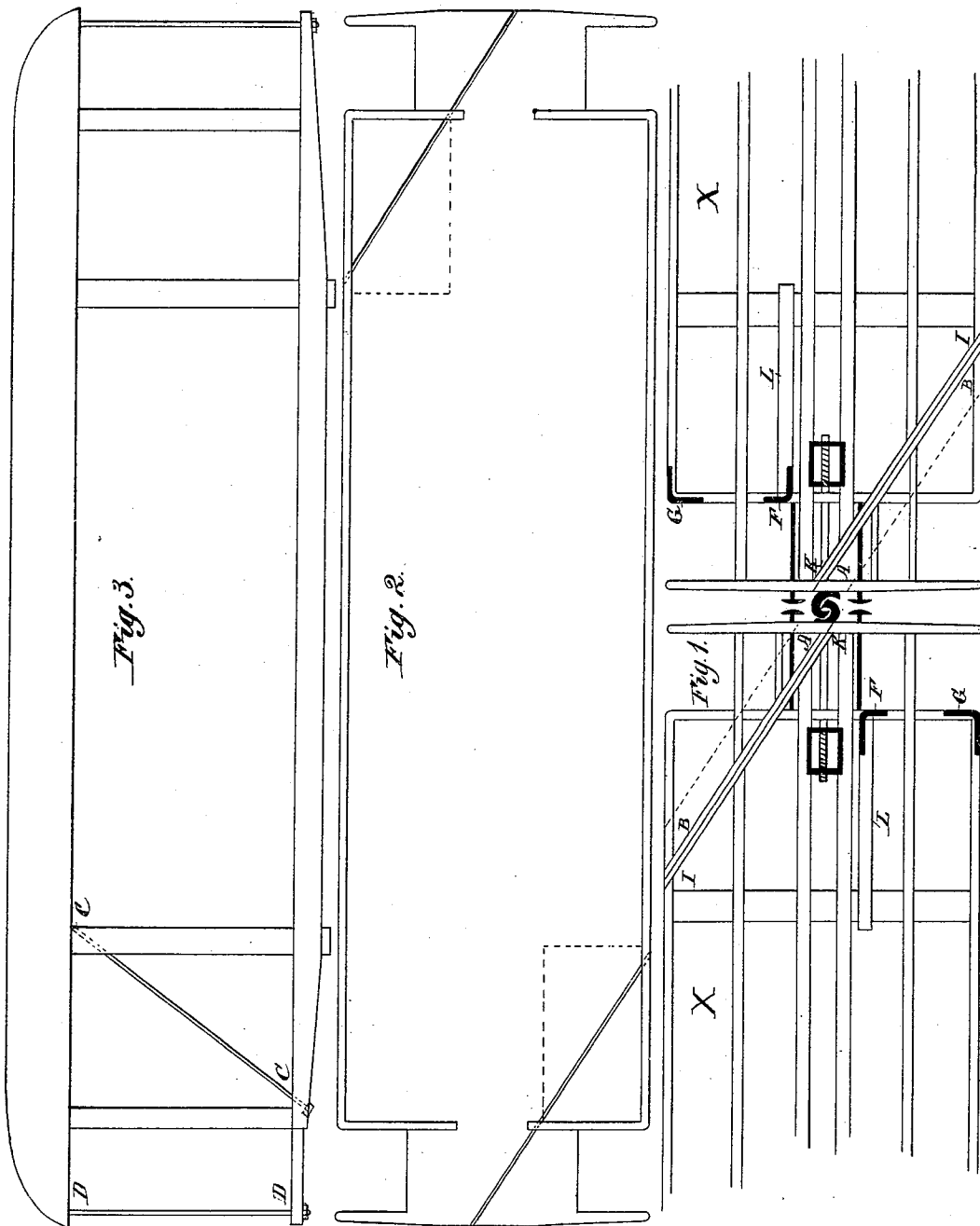


(No Model.)

J. MILTON.  
RAILWAY CAR.

No. 262,085.

Patented Aug. 1, 1882.



WITNESSES:

*W. W. Hollingsworth*  
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# UNITED STATES PATENT OFFICE.

JOHN MILTON, OF HAMILTON, VIRGINIA.

## RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 262,085, dated August 1, 1882.

Application filed May 12, 1882. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN MILTON, of Hamilton, in the county of Loudoun and State of Virginia, have invented a new and Improved Railway Passenger-Car; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide such a construction of railway passenger-car as will avoid telescoping and the disastrous consequences that result directly from the same in the event of a collision.

To this end my invention consists in constructing each end of the car with a corner, which is wholly independent of the frame-timbers of the main structure, but is fastened to the same, so as to fill out the proper outline of a car, and which, by being disconnected or displaced in the shock of a collision, allows the ends of the cars proper to wedge past each other, instead of telescoping into each other, and thus avoiding the great loss of life and limb which results from the latter.

Figure 1 is a plan view of the floor-timbers of a car constructed in accordance with my invention. Fig. 2 is a horizontal section through the body of the car; and Fig. 3 is a side elevation, showing the main timbers of a car-body.

Referring to Fig. 1, X represents the car-floor structure, constructed as ordinarily, except that the obliquely-opposite corners on opposite ends, as shown, are framed independently and attached to the main frame in such manner as to fill all the usual requirements of a passenger-coach; but so that in case of a collision and tendency to telescope the said corners, by reason of their being weaker than the opposing side of the next car, will be broken off, and should they not have sufficient strength to destroy the momentum of the car, the oblique side or frame-work I K, coming in contact with the re-enforced guard or fender F on the opposite car, will divert the car from its course, and render telescoping impossible. The timbers I K, constituting the oblique side or end of the main frame, are strongly fastened to the main frame, and the corresponding timbers, A B, which are a part of the frame

of the corner, are bolted to the timbers I K in such manner as to afford sufficient strength for common use, but of just such strength as will give way in the event of a collision. The corner of the car, attached as shown, is supported vertically by the superstructure and by rods, as shown at C C and D D in Fig. 3. F and G, Fig. 1, are iron guards or fenders, made very heavy, strongly fastened into the bottom timbers of the car, and extending high enough above the platform to receive the force of the colliding cars. The guard G may, however, not be necessary. These guards are built in with the wooden frame-work to supplement its strength, but will not be seen, except where the flange extends a short distance inside of the doorway. These guards serve the additional office of preventing the dislodgment of the stove and danger from fire, or, at least, of affording greater strength to the part of the car inclosing the stove.

Fig. 2 gives a further idea of the construction. There should be two closets in each car, on opposite sides and ends, and the connecting-line between the parts of the frame-work should pass diagonally through the closets, and thereby reduce to a minimum the chance of injury to any passenger in case of collision.

I do not confine myself to the diagonal line shown in my drawings, as the lines may be varied considerably without loss, even to the dotted position in Fig. 1, and possibly to some advantage; but whatever line is adopted should bisect the parts in front of the bolster or trucks.

The draw-head and buffers are attached, as usual, far enough back to escape the weakened portion of the frame, and cannot in any way affect the expected operation.

The timbers L L, Fig. 1, may or may not be used; but when not used their place should be supplied by a different arrangement of the ordinary timbers, so that one or more of them may be so placed as to hold the guards firmly.

I am aware that a passenger-car has been made with a vertically wedge-shaped end to afford less resistance to the air and avoid telescoping. In this construction the strong part of one car is exactly opposite the strong part of the next adjacent car, while in my construction the strong part of one car is opposite the weak part or detachable corner of the next ad-

jacent car, which are the most favorable conditions for the end I seek. I therefore only claim the car having at each end a detachable corner section on one side of a longitudinal line, 5 and the ordinary complete rectangular outline on the other side of the longitudinal line at the same end.

Having thus described my invention, what I claim as new is—

10 1. A passenger-car having each end constructed with an independent detachable and weaker corner section on one side of a longi-

tudinal line and with the ordinary rectangular outline on the other side of said longitudinal line at the same end, substantially as and for 15 the purpose described.

2. A passenger-car having each end constructed with guards G and F on one side and an independent corner section on the other, substantially as and for the purpose described. 20

JNO. MILTON.

Witnesses:

I. L. MCINTOSH,  
WM. GAINES.