

(No Model.)

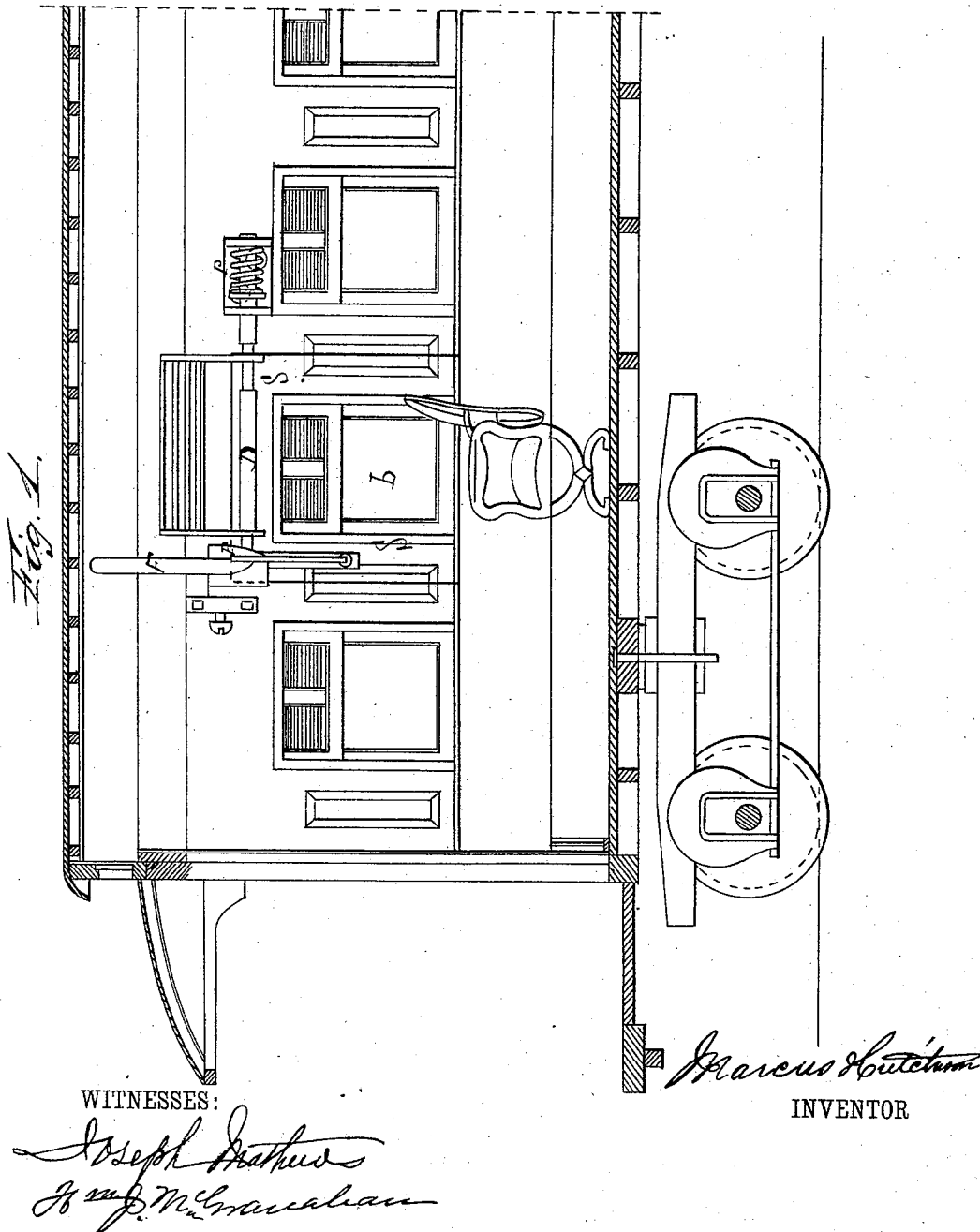
2 Sheets—Sheet 1.

M. HUTCHISON.

RAILWAY CAR.

No. 301,895.

Patented July 15, 1884.



(No Model.)

2 Sheets—Sheet 2.

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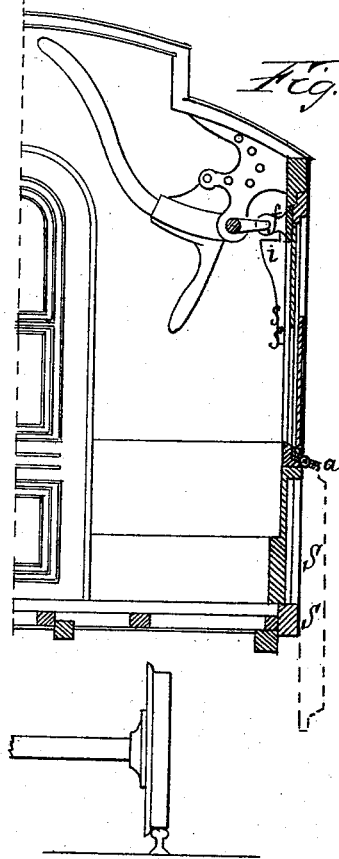


Fig. 2.

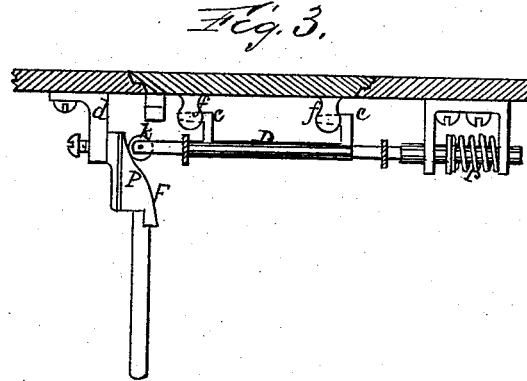


Fig. 3.

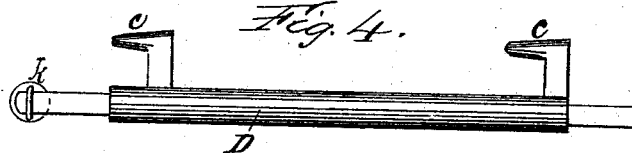


Fig. 4.

M. Hutchison

INVENTOR

WITNESSES:

Joseph Matthews
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UNITED STATES PATENT OFFICE.

MARCUS HUTCHISON, OF NEW YORK, N. Y.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 301,895, dated July 15, 1884.

Application filed October 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARCUS HUTCHISON, of the city, county, and State of New York, have invented certain new and useful Improvements in Railway-Cars, a full, clear, and exact description of which is contained in the following specification, reference being had to the accompanying drawings, which form a part thereof.

The object of my invention is to provide an immediate, safe, and easy means of escape from railway-cars in cases of collision, fire, or other disaster, and to arrange such means of escape in a convenient position in the cars, so that it may be accessible to the conductor or any of the passengers who may find it necessary to use it. In nearly every instance where a collision occurs on a railway, the doors at each end of our American cars are rendered useless, because the platforms are broken and the cars become what are called "telescoped," and the passengers are thus imprisoned in the cars without any means or way of escape, save the inadequate and useless resort of breaking the car-windows. My invention provides a way whereby a section or sections on either or both sides of the car can be thrown open, so as to permit the passengers to escape in an instant whenever an accident occurs.

Figure 1 represents a longitudinal section of the interior of a railway-car with the adjustable sections or section in position. Fig. 2 is a transverse section of the side of a railway-car with the adjustable section or sections in position, and also thrown open. Fig. 3 shows a longitudinal section of the side of a railway-car with the automatic bolt for holding the adjustable section of the car in its place. Fig. 4 is the automatic bolt.

In putting my invention into practical operation, I have constructed and arranged an adjustable section, S S, which is tightly fitted into and forms part of the side of a railway-car. In this section there may be one or more windows, *b*, according as convenience or utility may suggest or require. The lower side of this section S S is secured to the side of the car by suitable hinges, *a*, at its lower side, as shown in Fig. 2, which permits the section or sections to be opened or closed, as hereinafter described. The sides of the adjustable section are beveled and grooved, as shown in Figs. 2 and 3, which makes the seams

around the section perfectly air-tight and secure. At the upper side of the section there are secured two sockets, *f f*, with cone-shaped openings to receive the cone-shaped tenons *c c* on the automatic bolt D, as shown in Fig. 3. To the end of this automatic bolt D there is attached a spiral spring, *r*, which shoots the automatic bolt into its place and holds it firmly there when the section of the car is closed, and also serves to hold the section of the car securely in its place.

In case of collision or disaster the section S S of the car is easily thrown open by means of the lever F, so as to permit passengers to escape. This lever is fastened to the car by a bracket, *d*, and is provided with a wedge or incline, *p*, which, when the handle of the lever is pulled downward, first presses the automatic bolt D backward out of the sockets, and then the end of the lever pressed against the metallic flange *i* on the side of the section forces it outward and open. The automatic bolt D is provided with a small wheel, *k*, at the end, which enables it to run easily and smoothly on the wedge or incline of the lever. This lever may also be operated from the outside of the car by adding to the upper or handle end a supplemental lever and a chain or bell-rope. The automatic bolt D operates in two bearings, which are connected with the car, as shown in Fig. 1. The automatic bolt D is made square in the place where it operates in said bearings, and the bearings are of the same shape, which prevents the automatic bolt from revolving, and holds the tenons of said bolt in a line with the sockets on the section of the car.

My improvement does not interfere with the strength of the car or in any material particular increase the cost of construction of the ordinary railway-car. It may also be applied to either old or new cars at a mere nominal expense.

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

In combination, the adjustable section or sections of a railway-car, the automatic bolt, the lever, and wedge for operating the same, substantially as and for the purpose described.

MARCUS HUTCHISON.

Witnesses:

JOSEPH MATHEWS,
WM. J. McGRANAHAN.