

(No Model.)

2 Sheets—Sheet 1.

R. BATESON.
CAR FENDER.

No. 542,749.

Patented July 16, 1895.

Fig. 1.

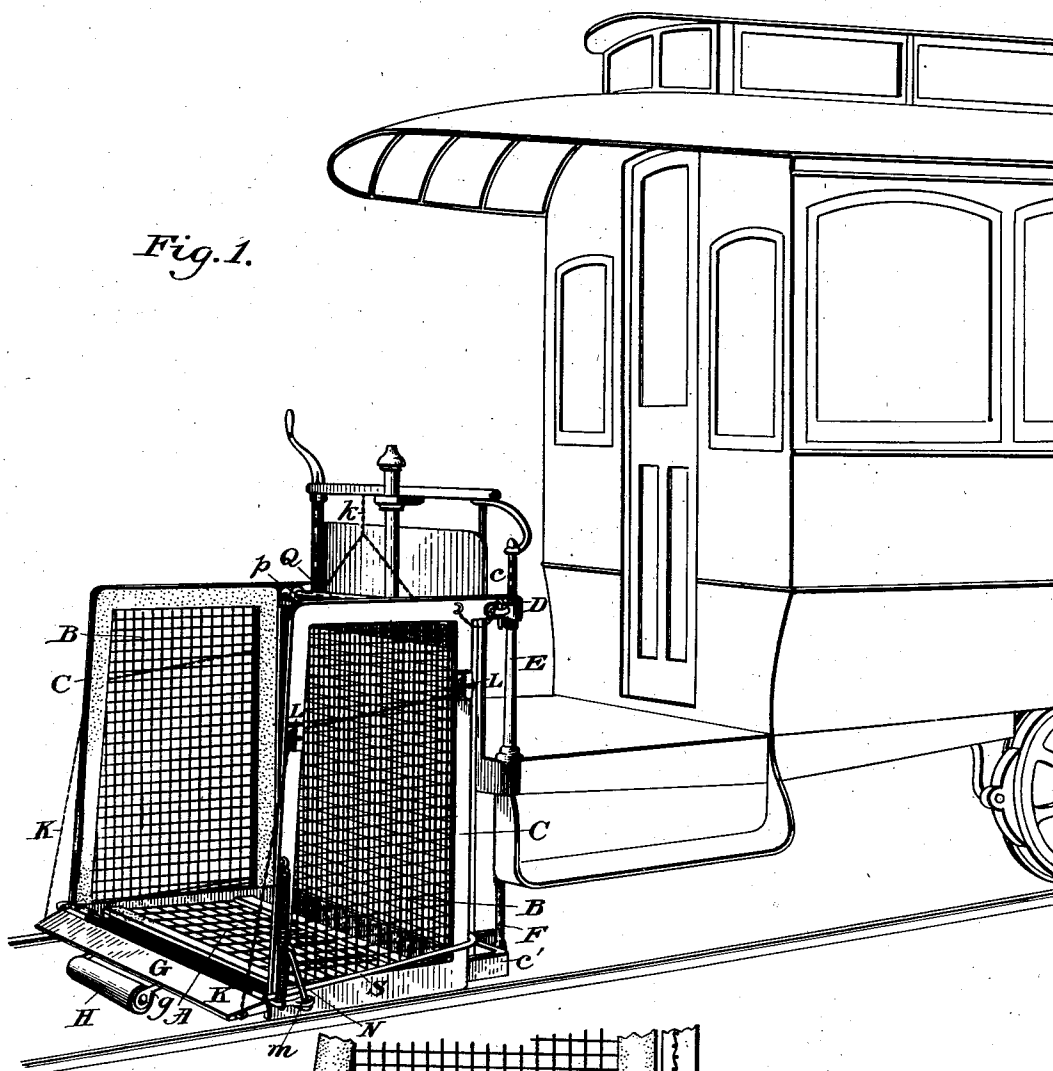
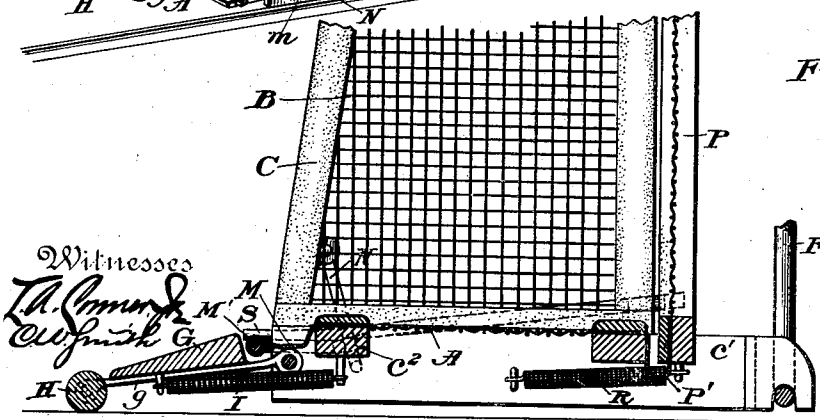


Fig. 2.



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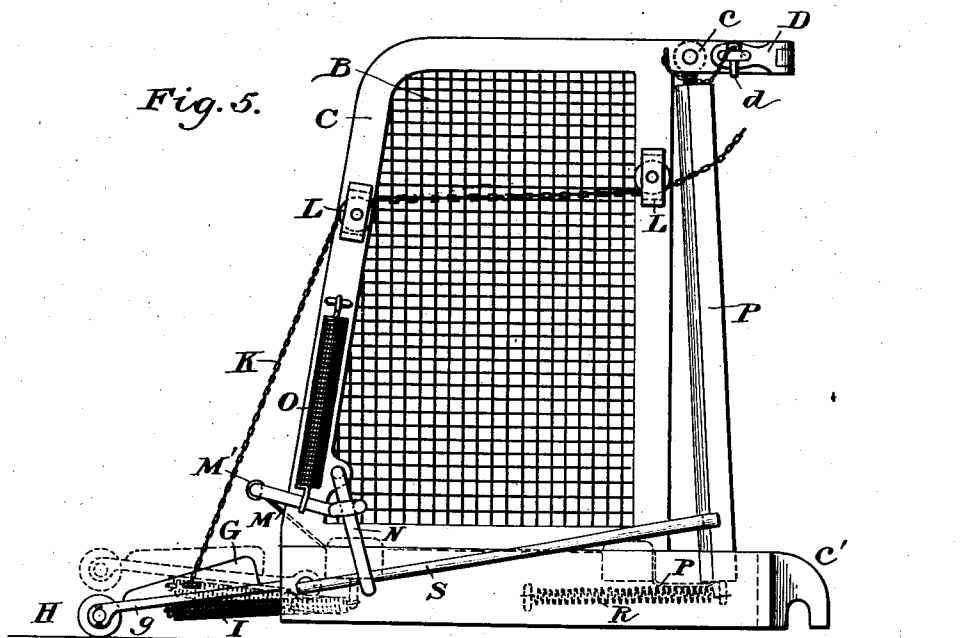
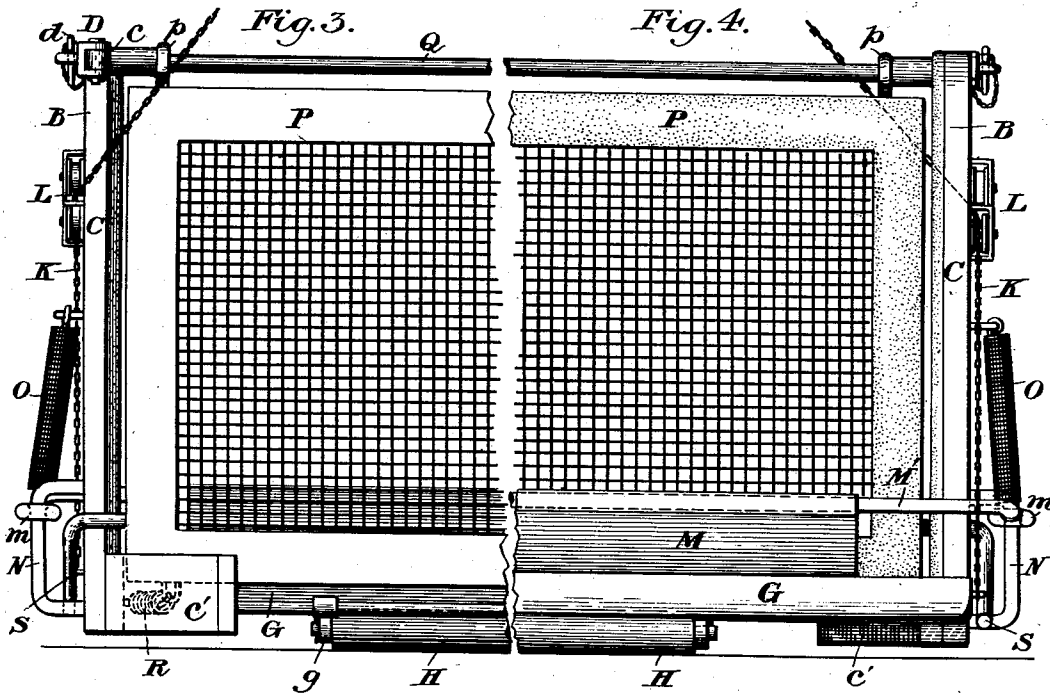
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2 Sheets—Sheet 2.

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Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT BATESON, OF FALL RIVER, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 542,749, dated July 16, 1895.

Application filed May 3, 1895. Serial No. 547,990. (No model.)

To all whom it may concern:

Be it known that I, ROBERT BATESON, a citizen of Great Britain, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Car-Fenders; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to railways; and its object is to prevent people from being injured when struck by a rapidly-moving car.

It consists in a fender of improved construction, which is especially adapted for electric and cable cars, though capable of use on cars of any kind.

My fender is of the fixed scoop type, being fastened to the front of the car and projecting forward therefrom. Its back is hinged horizontally at the top, so as to swing backward when struck, and in so doing it withdraws retaining-fingers from a vertically-movable guard at the front of the fender, allowing the guard to be raised by springs, and thereby prevent the object which has fallen into the fender from rolling out of it again.

In the drawings, Figure 1 is a perspective view of one end of a car equipped with my fender. Fig. 2 is a sectional elevation of the fender. Fig. 3 is a rear view of one-half, showing the guard raised. Fig. 4 is a front view of the other half, also with the guard raised. Fig. 5 is an end elevation with the guard raised.

The fender has a bottom A and ends B, which are preferably of netting secured to a frame C. From the upper rear corners of the end frames project arms c on which are hinged curved hasps D to encircle the stanchions E of the dashboard of the car. The hasps are fastened with a staple and pin d', or in any other convenient manner.

From the rear corners of the bottom frame project arms c', preferably bent twice at right angles, as shown, and notched, so as to hook

over hangers F depending from the car-platform.

Hinged to the front edge of the bottom A is a narrow horizontal dashboard G, beveled to a thin front edge, which is supported by a roller H, journaled in arms g, attached to the board G. The roller travels on the road-bed between the rails and keeps the edge of the board G always at the same height from the ground, preferably about three inches. The board is held down yieldingly by the springs I attached at one end to the board and at the other to the bottom A.

Connected with each end of the dashboard G are chains or cords K, which run up over pulleys L on the end frames to a common actuating device at k, convenient to the hand of the motorman. By pulling on the chains he can raise the board G and the roller H, as shown in dotted lines in Fig. 5, so as to clear an obstruction.

The most novel feature of my fender is a vertically-movable front guard which rises automatically whenever an object falls upon the fender, and thereby prevents it from rebounding off again. This guard may be constructed in a variety of ways. I prefer, however, to make use of a curtain M of flexible material, attached along one edge to the front rail c² of the bottom frame and at its other edge to a bar M', extending across the front of the fender and having at each end an eye m to engage with an upright guide N on the end frame. A spring, as O, is provided at each end of the bar to raise it and the curtain M to any desired height when the bar M' is released. I prefer to have it rise at least one foot from the position in which it is shown in Fig. 2. The guard may be released in any desired manner, either automatically or otherwise; but I prefer the automatic release. This may be variously accomplished; but the simplest, and therefore the best, mode is shown in the drawings, where the back P, which is hinged horizontally at its upper edge, is utilized to effect the release of the bar M'. The back is hung by means of eyes p on a rod Q, which unites and spaces the tops of the ends B. The lower edge of the back is free to swing backward, being pulled normally forward by springs, such as R. A strip of flexi-

ble material P' closes the space between the lower edge of the back and the rear edge of the bottom A. The back is thus made yielding, so that anything falling against it pushes it backward, and the force of the blow is thereby lessened. I utilize this movement of the back to release the front guard, which is therefore automatically thrown up whenever anything falls against the back P. The preferred construction is shown in the drawings. At each end of the back P there is a finger S extending forward and resting normally on the bar M', so as to hold said bar down close to the rear edge of the dashboard G, as shown in Fig. 2, thereby putting the springs O under tension.

When a person is struck by the fender he falls into it, and, striking the yielding back P, forces it backward, thereby withdrawing the fingers S from the bar M' and permitting the springs O to lift the bar and the curtain, which form a guard or barrier to prevent the individual from rebounding out of the fender.

The frame C may be padded, as shown, to assist in reducing the shock.

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

1. A car fender having a fixed bottom and ends, and a yielding back, hinged at its upper edge substantially as described.

2. A car fender having a fixed bottom, a yielding back, a vertically movable front guard, and operating connections between said back and guard, substantially as described.

3. A car fender having a fixed bottom, a yielding back a vertically movable front guard, springs for raising said guard, and fingers on said back for holding down said guard, substantially as described.

4. A car fender having a fixed bottom, and ends, upright guides supported on said ends, a cross bar along the front edge of the bottom having eyes engaging said guides, and a flexible curtain attached at one edge to said bottom and at the other edge to said bar, as described.

5. A car fender having a fixed bottom and ends, a back hinged at its upper edge, a bar extending across the front of the fender, a flexible curtain attached to said bar and to the said bottom, springs for raising said bar, and fingers on said back extending forward so as to rest normally on the bar, substantially as described.

6. A car fender having a horizontal dashboard hinged to its front edge, springs for holding down said dashboard, and means for raising said board at will, substantially as described.

7. A car fender having a horizontal dashboard hinged to its front edge, a long roller mounted on the front of said dash board, springs to hold the dash board down, and chains running from said dash board over pulleys to a point convenient to the motor-man, substantially as described.

8. The combination with a car, of hangers depending from the car platform, and a fender having rearwardly extending upper and lower arms, the latter being notched to hook over said hangers, and the former carrying hinged hasps to engage with the stanchions of the dashboard of the car, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT BATESON.

Witnesses:

ARBA N. LINCOLN,
ARMEL L. AUCLET.