

(No Model.)

M. SULLIVAN & T. J. BOND.
PROTECTOR GUARD FOR STREET RAILWAY CARS.

No. 546,257.

Patented Sept. 10, 1895.

Fig. 1.

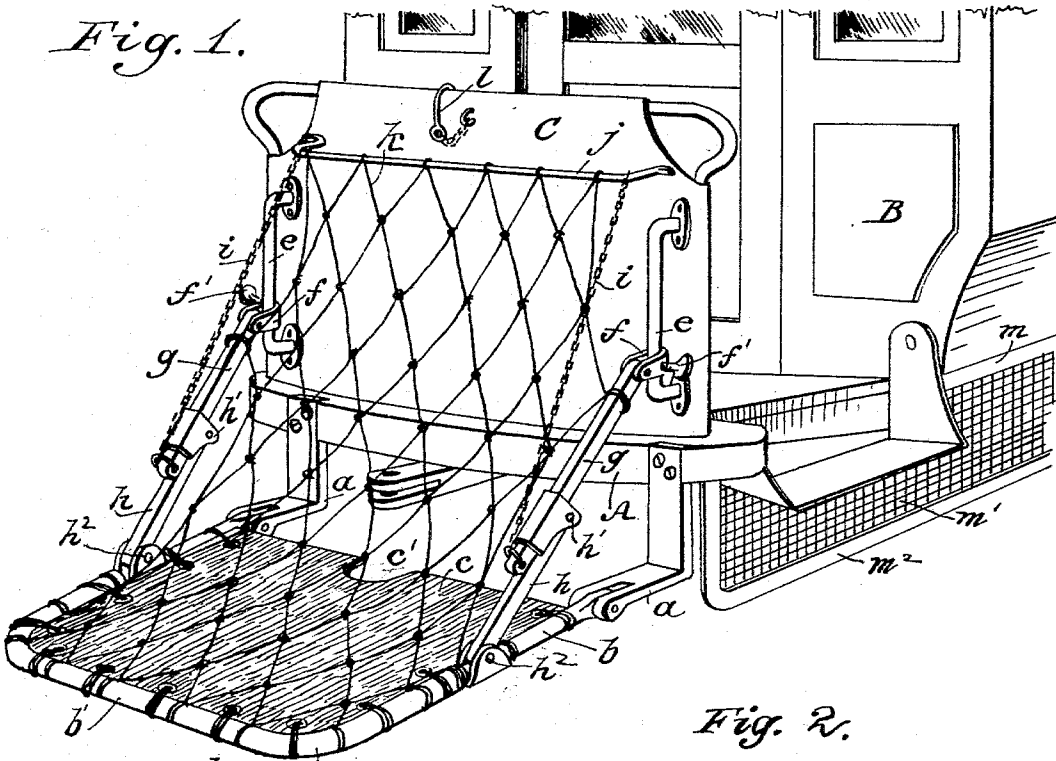
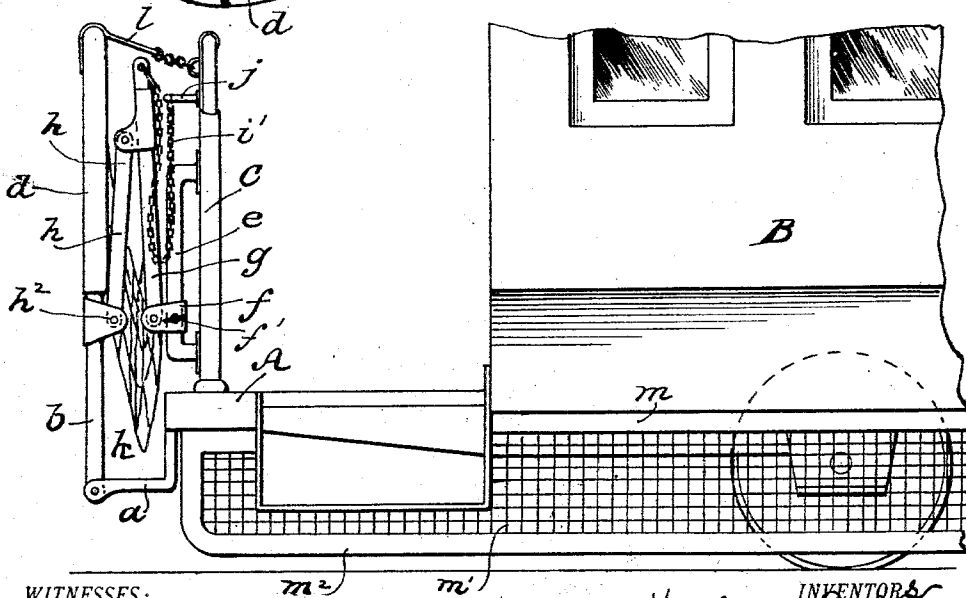


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MICHAEL SULLIVAN AND THOMAS J. BOND, OF NEWPORT, RHODE ISLAND.

PROTECTOR-GUARD FOR STREET-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 546,257, dated September 10, 1895.

Application filed March 17, 1894. Renewed February 9, 1895. Serial No. 537,757. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL SULLIVAN and THOMAS J. BOND, of Newport, in the county of Newport, State of Rhode Island, have invented certain new and useful Improvements in Protector-Guards for Street-Railway Cars, of which the following is a full, clear, and exact specification.

This invention relates to guards or fenders for street or other railway cars, and has for its object to provide a simple, cheap, and readily-operative device of this character which shall not only invariably prevent injury to the persons struck by the car, but which may also be lifted up and secured against the dashboard of the car when not in use.

The invention consists in the novel construction and arrangement of parts hereinafter fully described and particularly set forth.

In the accompanying drawings, forming part of this specification, in which like letters of reference designate corresponding parts throughout, Figure 1 is a perspective view of the forward end of a car provided with a device embodying our invention. Fig. 2 is a side elevation of the same with the fender folded up.

In the practice of our invention we secure to the platform A of the car B downwardly-projecting angular braces a, in which are journaled the side bars b, comprising the frame of the device, which said bars are joined by a front bar b', or the whole, if desired, may be made of one piece. Intervening the bars b and secured to the frame at varying intervals is the supporting-piece c, preferably formed of heavy canvas or other flexible material. The front of the frame has wound thereon a flexible covering d, which may be either of rubber, cord, or similar material.

At each side of the dashboard C are secured rods e, to which are connected by sliding loops f the rods g, forming part of a variation of toggle-joints of which rods h are the lower members, these rods h being pivoted to shoulders h', somewhat removed from the free ends of the rods g. The members h are also pivoted to shoulders h² upon the bars b.

To the end of each of the rods g are secured chains i, connecting to a bar j upon the face

of the dashboard, these chains serving to support the fender and to enable the same to be raised when not in use. To this bar j and to the frame of the fender is secured a netting k, which may be either of hempen rope, rubber, wire, or other strands. This netting is loosely stretched from the bar j to the front bar b' in order to receive and prevent injury to the body with which the car comes in contact.

At the top of the dashboard is a hook or like fastening l, by means of which, when the device is raised, the fender may be maintained in such a position.

The operation of the device will be readily apparent from the foregoing description, taken in connection with the drawings. The protector being in the position illustrated in Fig. 2 and there being danger of the car striking an obstruction or a passing pedestrian, the gripman or driver of the car releases the hook l and permits the fender to drop and assume the position shown in Fig. 1; or, if desired, the fender may be lowered continuously upon each trip of the car. Should the fender strike a body standing or resting upon the track, such body will be immediately deposited in the netting k, by which and by the canvas or other support c the body will be carried and held until the car can be stopped.

In order that the body may not be struck by one side of the fender and forced beneath the platform and the wheels of the car, we provide at each side of the latter a guard m throughout its entire length, such guard comprising a network m', secured upon a longitudinal frame m². The fender may be slightly elevated by raising the loops f and securing them in such raised position by tightening the set-screws f' or by any other desired means. This is of particular advantage when there is snow, ice, or such matter upon the car-track with which it is not desired that the fender may come in contact. The supporting-body c may also be cut out at c' in order not to interfere with the coupling of the car.

It will be observed that by the construction herein shown the weight and strain of the protector and of any body caught up by the same are evenly distributed among the different parts of the dashboard and the platform and breakage or wrenching of parts practically avoided.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A protector guard for street and other railway cars comprising a fender formed of a rigid frame and a yielding body, supported in front of the car by toggle-joints slidably connected to the dash board, means for raising or lowering the fender, for holding the same in either position, and for adjusting the height of the same, substantially as shown and described.

2. A protector guard for street and other railway cars comprising a fender formed of a rigid frame and an intervening yielding body, the said frame being pivotally supported from the platform of the car and by toggle-joints, slidably connected with the dash board by loops having set screws therein, means for raising or lowering the fender, and for holding the same in either position, substantially as shown and described.

3. A protector guard for street and other railway cars comprising a fender, formed of a rigid frame and a yielding body, supported from the platform of the car and by toggle-joints slidably connected to the dash board, means for raising or lowering the fender, for holding the same in either position, and for adjusting the height of the same, and a netting secured to the front of the fender and to the dash board of the car at the top, substantially as shown and described.

4. A protector guard for street and other railway cars comprising a fender formed of a rigid frame and an intervening yielding body, the said frame being pivotally supported from the platform of the car and by toggle-joints sliding by means of loops on vertical rods secured to the dash-board, set screws in the said loops, means for raising or lowering the fender, and a fastening at the top of the dash-board to hold the same when raised, substantially as shown and described.

5. A protector guard for street and other railway cars comprising a fender formed of

a rigid frame and an intervening semi-flexible body, the said frame being journaled in braces depending from the car platform, toggle-joints pivoted to the fender at each side, and to loops sliding on vertical rods secured to the dash board, set screws in the said loops, chains secured to the toggle-joints and to the dash board at the top, and a fastening on the dash board to hold the fender when raised, substantially as shown and described.

6. A protector guard for street and other railway cars comprising a fender formed of a rigid frame and an intervening yielding body, the said frame being pivotally supported from the platform of the car, toggle-joints pivoted to the fender and to loops sliding on vertical rods secured to the dash board, set screws in said loops, means for raising the fender, a fastening on the dash board to hold the same when raised, and a netting secured to the front of the fender and to the dash board of the car at the top, substantially as shown and described.

7. A protector guard for street and other railway cars comprising a fender formed of a rigid cushioned frame and an intervening semi-flexible body, the said frame being journaled in braces depending from the car platform, toggle-joints pivoted to the fender at each side and to loops sliding on vertical rods upon the dash board, set screws in said loops, chains secured to the toggle-joints and to a horizontal bar at the top of the dash board, a netting secured to the front of the fender and to the horizontal bar, and a fastening on the dash board to hold the fender when raised, substantially as shown and described.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 12th day of March, 1894.

MICHAEL SULLIVAN.
THOMAS J. BOND.

Witnesses:

FREDERICK I. BOND,
MICHAEL W. CALLAGHAN.