

(No Model.)

B. SULLIVAN.
FENDER FOR STREET CARS.

No. 477,467.

Patented June 21, 1892.

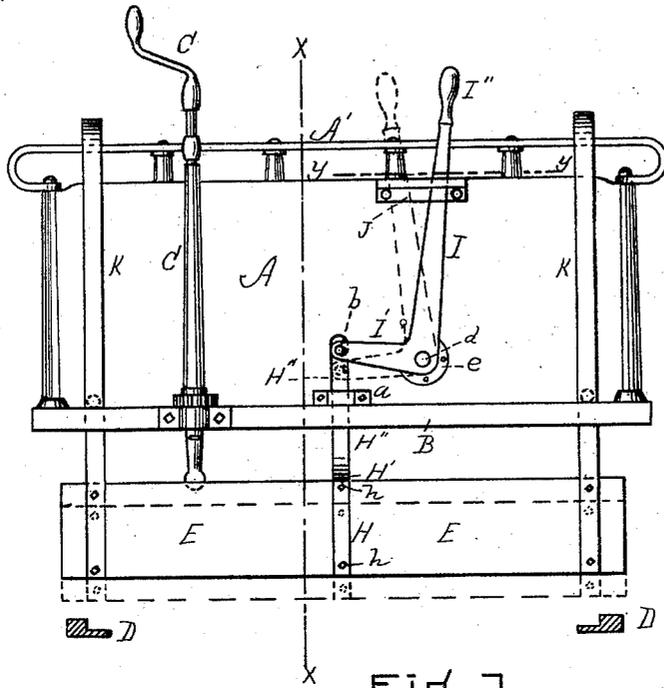


FIG. 1.

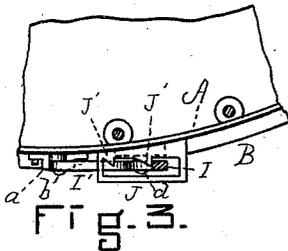
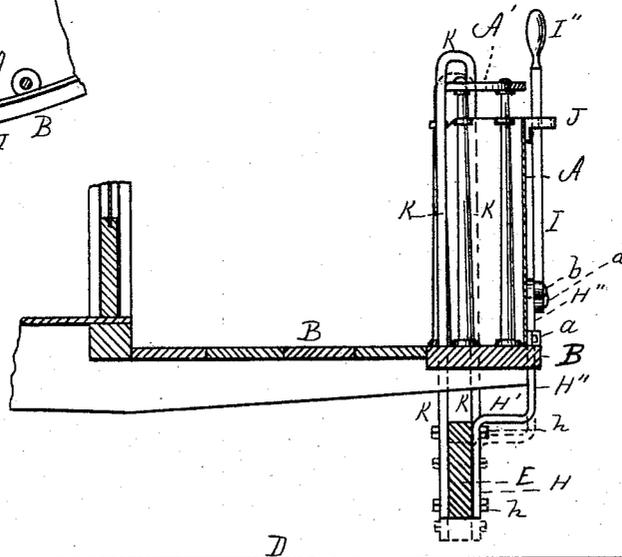


FIG. 3.



INVENTOR.
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 By his Atty.
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WITNESSES.
 L. G. Smith.
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UNITED STATES PATENT OFFICE.

BARTHOLOMEW SULLIVAN, OF BOSTON, MASSACHUSETTS.

FENDER FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 477,467, dated June 21, 1892.

Application filed February 9, 1892. Serial No. 420,887. (No model.)

To all whom it may concern:

Be it known that I, BARTHOLOMEW SULLIVAN, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Fenders for Street-Cars, of which the following is a specification.

This invention relates to fenders for electric, cable, and other street-railway cars, the object being to provide means whereby any movable or portable obstacle may be prevented from coming into contact with the wheels of the car. Many lives have been lost by persons stepping or falling in front of electric or other street-cars which are propelled by other than horse-power, and it is difficult, if not impossible, to provide a fixed fender which will extend down near enough to the pavement or road-surface to prevent an arm or leg of a person from being drawn under it and yet have its lower edge a sufficient distance from the road-bed to allow for inequalities therein or the swinging or rocking of the car. In other words, the lower edge of the fender, in order to prevent striking an unequal or raised portion of the road-bed, must be so far above it that if a human being were to fall in front of a moving car to which such fender were attached the space between the fender and the road-bed would be so great that an arm or limb or perhaps the whole body might be drawn under and crushed. I obviate this difficulty by providing in my invention a fender which is adjustable vertically, so that, while it is normally raised to a sufficient height to prevent it from ever coming in contact with the road-bed, it can be instantly lowered or dropped to a point, say, two inches from the pavement in case of necessity, such as would arise were a human being to fall in front of or be in imminent danger of being struck by the car.

The nature of my invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the front platform and dash-board of a street-car with my invention applied thereto. The rails of

the track are shown in cross vertical section. Fig. 2 is a vertical section taken on line *x*, Fig. 1. Fig. 3 is a sectional detail, the section being taken on line *y*, Fig. 1.

Similar letters of reference indicate like parts.

A represents the dash-board, A' the dash-rail, B the front platform, and C the brake mechanism, all constructed substantially as usual.

D D are the rails.

E is the main portion of the fender, and consists of a piece or pieces of strong wood or other material of substantially the shape shown, situated under or below the front edge of the front platform.

H is a metallic bar rigidly secured at *h* to the central portion of the fender, said bar being bent forward horizontally at H' and thence upward vertically at H'' and extending through a guide-strap *a*, secured to the front side of the dash-board.

Pivotally secured at *b* to the portion H'' of the bar is the short arm I' of the elbow-lever I, which is pivoted at *d* to a suitable plate or bracket *e*, secured to the front of the dash-board. The upper portion of this lever plays in the bracket or loop J, secured to the upper portion of the front of the dash-board. The device being in the position shown in full lines in the drawings, it will readily be seen that if the lever is grasped by the handle I'' and swung to the left the fender E will drop by gravity into the position shown by broken lines—a position which is, say, two inches from the track. The lever I is held in its usual position—*i. e.*, that shown in full lines—by the ratchet-teeth J', Fig. 3, which are integral with the bracket or loop J, secured to the dash-board, in which the lever I swings. To release the lever, it is simply pushed forward and sprung out of contact with the tooth J' and allowed to fly to the left, impelled by the weight of the dropping fender E. Near the opposite ends of the fender E guiding straps or bars K are secured to its front and rear surfaces, said straps or bars extending up on both sides of the dash-board and doubling over the

top thereof. These bars K not only serve to guide the fender E in its vertical movement, but prevent it from being twisted or wrenched away from the central bar H by a strain or pressure upon the fender near the ends thereof.

It will readily be seen that while the car is moving with the fender in the position shown in full lines should an obstruction appear on the track at such a distance that the car could not be stopped before such obstruction is reached it is the work of but an instant to spring out the lever I from its engagement with the tooth J' and drop the fender into the position shown in broken lines, such position being so near the track that the obstruction would be pushed along by the fender and not drawn under it. As soon as the danger is past the fender would be lifted into its former position, so as to avoid any chance of

its coming into contact with any inequality in the road-bed or a joint in the track.

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

In an adjustable street-car fender, the combination of the lifting-board E, the lifting-bar H, secured to said board, the lever I I', pivotally secured to the car and connected with the lifting-bar, the loop or bracket J, provided with the teeth J', and the guiding and stiffening straps K, extending from the lifting-board up over the dash-board, substantially as set forth.

BARTHOLOMEW SULLIVAN.

Witnesses:

HENRY W. WILLIAMS,
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