

(No Model.)

W. J. NUNN.

FENDER FOR ELECTRIC, CABLE, OR OTHER SIMILAR CARS.

No. 501,294.

Patented July 11, 1893.

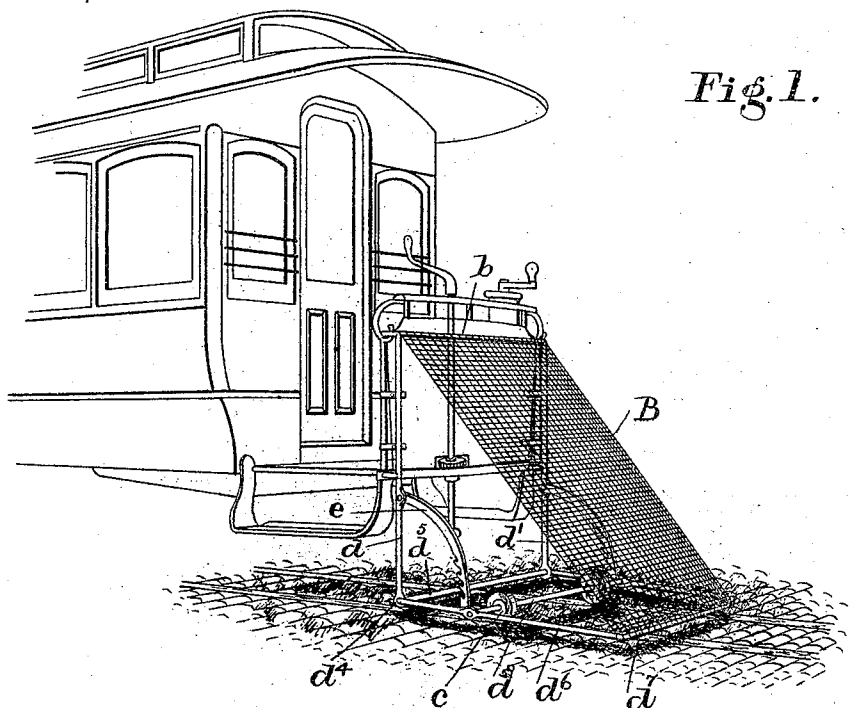


Fig. 1.

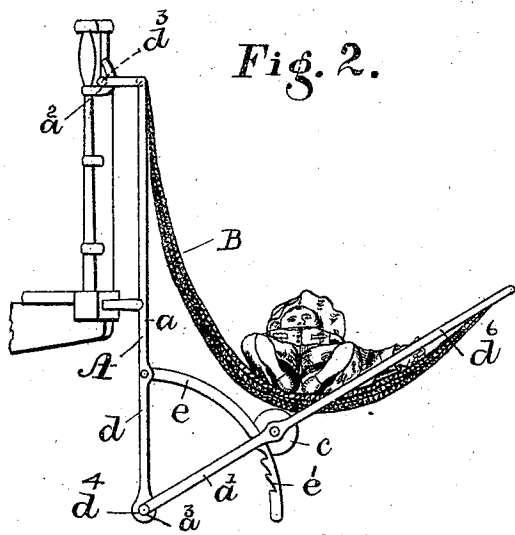


Fig. 2.

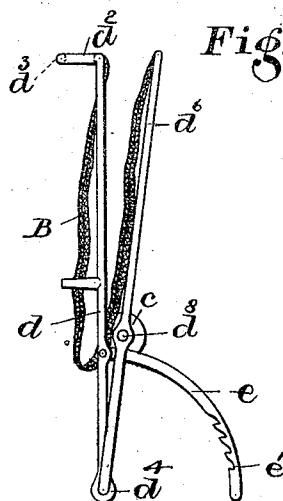


Fig. 3.

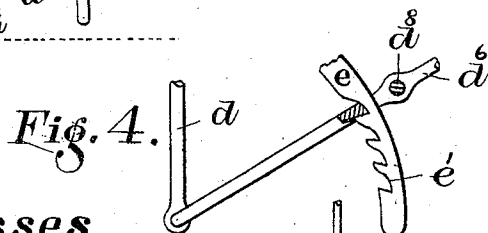


Fig. 4.

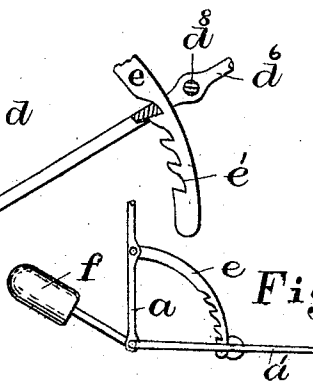


Fig. 5.

Witnesses.

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# UNITED STATES PATENT OFFICE.

WILLIAM J. NUNN, OF HYDE PARK, MASSACHUSETTS.

## FENDER FOR ELECTRIC, CABLE, OR OTHER SIMILAR CARS.

SPECIFICATION forming part of Letters Patent No. 501,294, dated July 11, 1893.

Application filed January 27, 1892. Serial No. 419,394. (No model.)

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

Be it known that I, WILLIAM J. NUNN, a citizen of the United States, residing at Hyde Park, in the county of Norfolk, State of Massachusetts, have invented a new and useful Improvement in Fenders for Electric, Cable, or other Similar Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings in explaining its nature.

My invention relates to a fender for electric, cable, and similar cars, comprising a strip or section of flexible material like wire gauze of fine mesh or duck or other similar woven fabric of the width of the car dasher or car front, or of very nearly its width, suspended or attached at its upper end to the car dasher or front, and attached or secured at its lower end to a hinged support extending forward from the car dasher or front, and adapted to be folded or moved upwardly against or toward the car dasher or front, and preferably when so moved to be automatically latched or locked in such new position. The frame or support for the lower edge of the flexible fending section or strip, which hereinafter I will term the flexible fender, may be mounted upon small rolls or wheels to run on the tracks.

The invention further relates to the construction of the fender frame and fender, whereby it is made detachable from the dasher or car front, in order that it may be transferred from one end of the car to the other, thus requiring but one fender for each car, instead of two as would be the case if permanently attached to the dasher, or not easily removable therefrom.

The invention further relates to the construction of the fender, whereby it is made light, and whereby also it is folded into comparatively small compass, and therefore made easily portable.

It further relates to various details of construction, all of which will hereinafter be fully specified.

In the drawings Figure 1 is a view in perspective illustrating my improvement as attached to the front of a car. Fig. 2 is a view in side elevation showing the operation of the device. Fig. 3 is a view in side elevation showing it detached and in portable shape. Fig. 4 is an enlarged detail view, and Fig. 5

is a view illustrating a feature to which reference is hereinafter made.

The fender frame A, is made in two parts *a* and *a'*. The part *a* is vertical, and is suspended in front of the dasher upon pins or hooks *a*<sup>2</sup>. The horizontal section *a'* is hinged at its rear end *a*<sup>3</sup> to the lower end of the vertical section *a*.

The fender B, is made of any suitable flexible material like wire gauze of small gage, duck or other fabric. It is supported at its upper edge at or near the top of the vertical section *a* of the frame, and is attached or secured at its lower edge to a front rod or bar of the horizontal frame.

The fender is attached to the car front or dasher in such manner as to bring the front lower edge of the fender as closely to the ground as it can be run, and also so that it is held away from and in front of the dasher when in its normal position. The lower horizontal section of the frame may have small wheels or rolls *c*, suitably supported to run on the tracks and support or partially support the lower section of the frame. I have represented in the drawings the two sections *a a'* of the fender frame made of rods or gas pipe, but, of course, I do not confine myself to this particular method or manner of making it. As illustrated, however, the upper section *a* of the frame has the vertical side bars *d d'*, which are bent backward at their upper ends *d*<sup>2</sup>, and are united by the horizontal section *d*<sup>3</sup>. This upper section *d*<sup>2</sup> *d*<sup>3</sup> forms convenient means for attaching the device to the car dasher; the lower ends of the bars *d d'* have rings or eyes *d*<sup>4</sup>, through which extends the horizontal cross-bar *d*<sup>5</sup> of the lower section *a'* of the frame, and from the ends of this horizontal section *d*<sup>5</sup> there extends forward the side rods or bars *d*<sup>6</sup> which are united at their front ends by the cross bar or rod *d*<sup>7</sup>. The wheels or rolls *c* may be supported upon any part of the horizontal frame. I have represented them as carried by the cross rod *d*<sup>8</sup>.

The fender is attached at its upper end to the cross rod *b*, preferably extending across the upper section of the frame at its top or upper edge, and at its bottom or lower edge to the cross rod *d*<sup>7</sup> of the swinging or horizontal frame. The upper frame also has the hinged ratchet sectors *e* pivoted to the verti-

cal portions of the frame and having ratchet or other teeth  $e'$  arranged to engage engaging latches or portions extending from the side rod  $d^6$  of the lower frame, when the lower frame has been lifted sufficiently to bring the latches into engagement with the ratchet teeth, the sectors resting by gravity upon the latches and automatically engaging them, as the lower frame is lifted, and they serve to hold the lower frame into any position to which it may be lifted. The lower horizontal or swinging frame may be counterbalanced in relation to the upper or vertical section, when desired, by arranging a counterbalance  $f$  back of the vertical frame, and connected to or carried with the horizontal frame.

In Fig. 1 the fender is represented in its normal position upon a car dasher; in Fig. 2 it is represented as having engaged a child; in Fig. 3 it is represented in its portable shape. It is desirable that the rods  $b$  and  $d'$  be made somewhat flexible to prevent injury to anyone whom they might strike. The rod  $d'$ , however, may be stiff, and it may be covered with a flexible padding or other covering.

The fender acts in saving and protecting life in the following manner:—Attached to the dasher of the car the lower edge  $d'$  projects outwardly therefrom and close to the ground, and it supports in front of the dasher substantially the full width of the car the safety netting or webbing which comprises the fender; and a person who might otherwise be struck by the dasher is struck by the lower bar of the fender and caused thereby to be thrown over into the webbing or net, and the striking or falling upon the webbing or net of the body causes the forward part of the swinging or horizontal frame to be thrown or moved up-

ward, thereby forming an open cradle or receptacle in which the body is held, the forward part of the horizontal or swinging frame being automatically locked by the ratchets or other locking device into a position sufficiently elevated to form this safety holding sack or cradle.

It will be observed that the construction of the device is simple and cheap; that it is also light; that it is easily detachable, and that it is readily folded into a portable shape.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The fender for electric and other cars herein described comprising a horizontal rectangular frame  $a'$  pivoted at its rear end to supports extending downward from the car front, the rolls  $C$  for supporting the same on the rails, said support and rolls being adapted to be moved upward upon its pivots and a flexible fender connected at its upper edge with the front of the car and at its lower edge with the forward cross bar of said hinged frame, as and for the purposes described.

2. The frame-work made of gas pipe or rods comprising the section  $a$ , having the vertical side bars  $d$   $d'$ , provided at their lower ends with the eyes  $d^4$ , and extending backward at their upper ends, and united by the bar  $d^3$ , the cross-bar  $b$ , and the lower frame  $a'$ , comprising the forward extending arms  $d^6$  and the cross bars  $d^7$   $d^8$  and the flexible material  $B$ , as and for the purposes described.

WILLIAM J. NUNN.

Witnesses:

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