

(No Model.)

E. D. ABBOTT.
CAR FENDER.

No. 537,171.

Patented Apr. 9, 1895.

Fig 1.

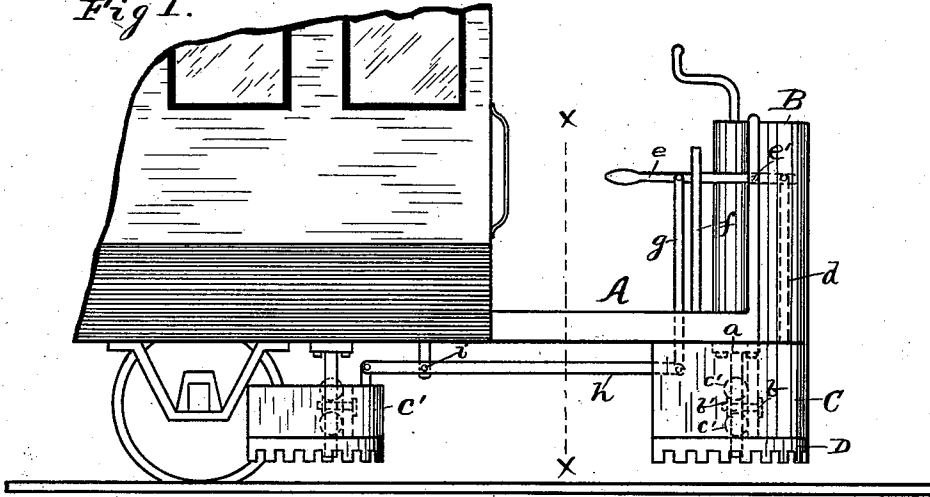


Fig 2.

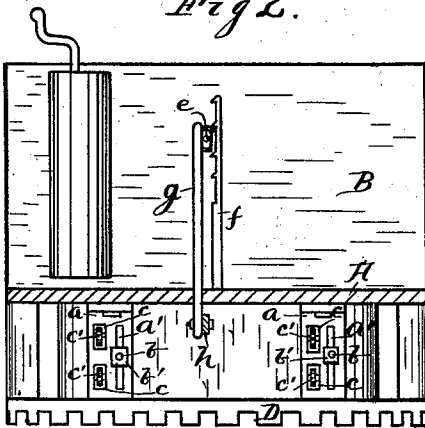
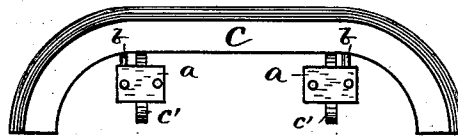


Fig 3.



WITNESSES:

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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 537,171, dated April 9, 1895.

Application filed January 19, 1895. Serial No. 535,441. (No model.)

To all whom it may concern:

Be it known that I, ELMER D. ABBOTT, of Dayton, county of Montgomery, State of Ohio, have invented a new and useful Improvement 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.

This invention relates to improvements in street car fenders.

15 The object of the invention is to provide a safety guard or fender that will prevent a person who has been struck by a moving car, from being run over or otherwise crushed by the truck.

20 A further object is to provide a device of the character named that will in no wise mar the appearance of the car, and that will not project laterally beyond the space occupied by the car.

25 To these ends the invention consists of parts that will be described in the following specification and are shown in the annexed drawings, of which—

30 Figure 1 is a side elevation of the front portion of a street car, having my improved fender applied thereto. Fig. 2 is a section on the line (x—x) of Fig. 1, looking to the right; Fig. 3, a detached, detail plan view of the fender.

35 In the detailed description, A designates an end platform; B, the usual curved dash board, the outer side of which is padded or upholstered in material that has an imperious nature.

40 C designates the fender which is preferably constructed of wood, suitably braced, and substantially supported below the front terminal of the platform. This fender is suitably padded or upholstered on its outer side, in a manner similar to the front of the dash board, and its outer curved side when so padded, is on a line coincident with the outer surface of the dash board, as shown in the drawings.

50 D designates a substantial strip of rubber, the lower edge of which is serrated. This serrated rubber is attached to the lower edge

of the fender in any suitable manner that will effect a rigid attachment of said parts.

(a)—(a) designate metallic hangers that are rigidly attached to the bottom of the platform. These hangers have vertical slots (a')—(a'), through which, bolts (b)—(b) that are rigidly attached to the inner side of the fender, pass. The ends of said bolts that project through the slots are fitted with nuts (b')—(b'), and thereby the fender is maintained against lateral movement, and in a position to be moved vertically. (c) designates slots also in said hangers in which are inclosed, anti-friction rollers (c') the journals of which have bearings in said hangers. When properly adjusted by means of the bolts and nuts above referred to, the inner side of the fender will be normally in contact with these rollers.

As shown in Fig. 1, the fender is in its elevated position. When let down, the serrations or teeth on the rubber will come in contact with the ground, and will maintain a desirable contact therewith; yielding sufficiently to the unevenness thereof, occasioned by the paving, cobble, stones &c. When the fender is let down, the contact of the rubber with the ground is close, and such as to preclude the possibility of any part of the prostrate form getting under it. Besides this function, the contact of the rubber with the ground will materially act as a brake to stop the car, after the motorman has cut off the electric current.

The means for operating the fender consists of the following mechanism.

(d) designates a vertical rod shown in dotted lines in Fig. 1. This rod has a rigid attachment with the fender at a central point, and a pivotal connection to the end of a hand lever (e) which has a fulcrum at (e'), in the dash board of the car.

(f) designates a vertical rack suitably mounted on the platform, with the teeth of which, the hand lever (e) is adapted to lock and support the fender in an elevated position.

Thus far I have described the fender just below the platform, and which alone is effective in preventing a person who has been knocked down by the car, from passing under the fender, but in order to make the means

for preventing the truck from passing over the prostrate person, doubly sure, I locate an auxiliary fender (C), in the front of, and adjacent to the front wheels. This fender is
 5 constructed in form and upholstered substantially the same as (C), and its mounting is identically the same as that described in connection with the latter fender. This auxiliary fender is operated simultaneously with
 10 the fender (C) by the hand lever (e) to which a vertical connecting rod (g) is pivoted.

(h) designates a horizontal lever having one end pivoted to said rod (g), and a fulcrum at (i), upon a bearing depending from the bot-
 15 tom of the car in any suitable manner.

It will be seen that by unlocking the lever (e) from engagement with the rack bar, the weight of the fender (C) will turn said lever on its fulcrum, which will simultaneously
 20 lower both fenders to the ground. This detachment of the lever is conveniently done by the motorman, who is not required to leave his position, to operate the said lever.

Very little effort on the part of the motor-
 25 man is required to place the fender in a position to save a life; it only being necessary to release the lever (e) from its retaining position, and it will be seen the fender does not project at any point, beyond the space occu-
 30 pied by the car; and further, there is no complicated mechanism to get out of order. Realizing the impossible in nature, I do not claim that it has a capacity for removing a person from so perilous a position, free from a scratch
 35 or bruise; but I do assert that life will be invariably preserved thereby, and possibly in no case will the injury amount to more than a scratch or bruise.

Having fully described my invention, I
 40 claim—

1. The combination with a curved dash board having its outer side padded or uphol-
 45 stered as described, of a curved fender below said dash board and on a line with the outer surface thereof, said fender having at its lower edge a serrated rubber scraper which

conforms to the curvature of said fender, said serrated scraper being adapted to come in contact with the ground, and by reason of the serrations, permitted to yield at any point in
 50 passing over obstructions, substantially as described.

2. The combination with a curved dash board having its outer side padded or uphol-
 55 stered as described, of a fender occupying a position coincident with the outer curved side of said dash board, hangers provided with vertical slots mounted adjacent to said fender, rollers mounted in said hangers, bolts project-
 60 ing from the fender into and through the vertical slots in said hangers, a serrated rubber scraper attached to the lower end of said fender and conforming to the curvature thereof, a vertical rod pivoted to said fender, and a
 65 lever connected to said rod for operating the fender, substantially as described.

3. In a car fender, the combination with the platform; of a fender mounted below said plat-
 70 form, the outer side of which is provided with a cushion surface that occupies a position co-incident with the outer edge of the platform; a serrated rubber scraper attached to the lower
 75 part of said fender; hangers mounted beneath the platform, with slots therein; bolts attached to the inner side of the fender and adapted to project through said slots, and
 80 means for making said bolts secure therein; anti-friction rollers mounted in said hangers, against which said fender normally rests; a vertical rod secured to said fender, and to a
 85 hand lever; an auxiliary fender as described, adjacent to the front wheels, and means interposed between said auxiliary fender, and the hand lever for lowering or raising said fender, substantially as described.

In testimony whereof I have hereunto set
 my hand this 17th day of January, 1895.

ELMER D. ABBOTT.

Witnesses:

S. A. DICKSON,
 R. J. McCARTY.