

(No Model.)

F. W. LAFFERTY.
CAR FENDER.

No. 555,382.

Patented Feb. 25, 1896.

Fig. 1.

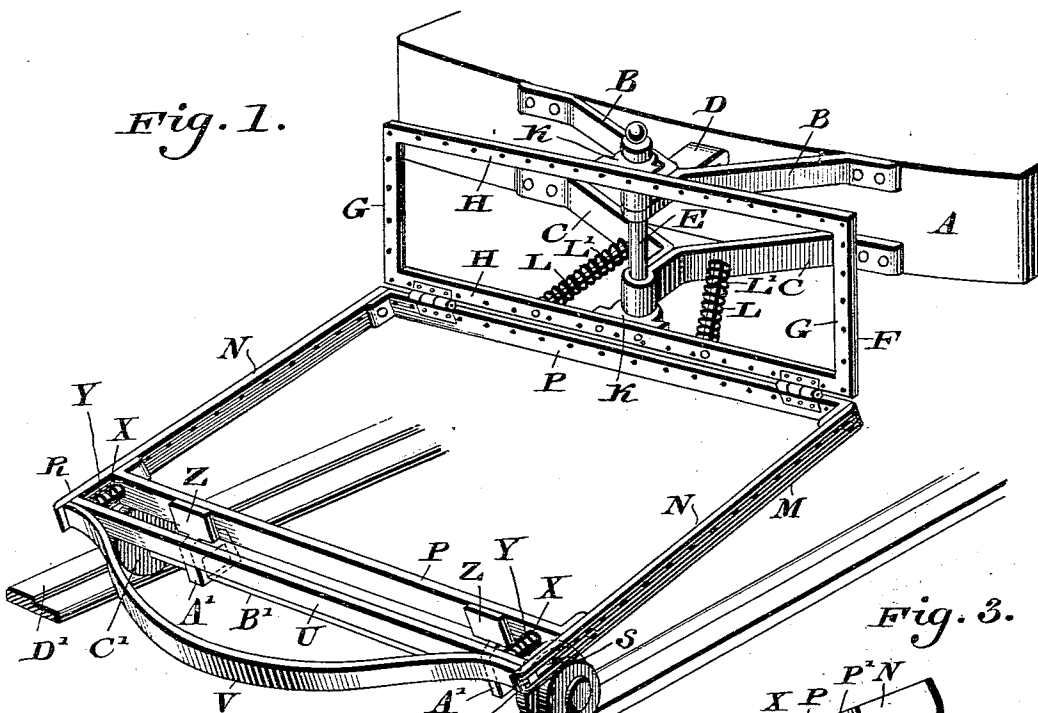


Fig. 2.

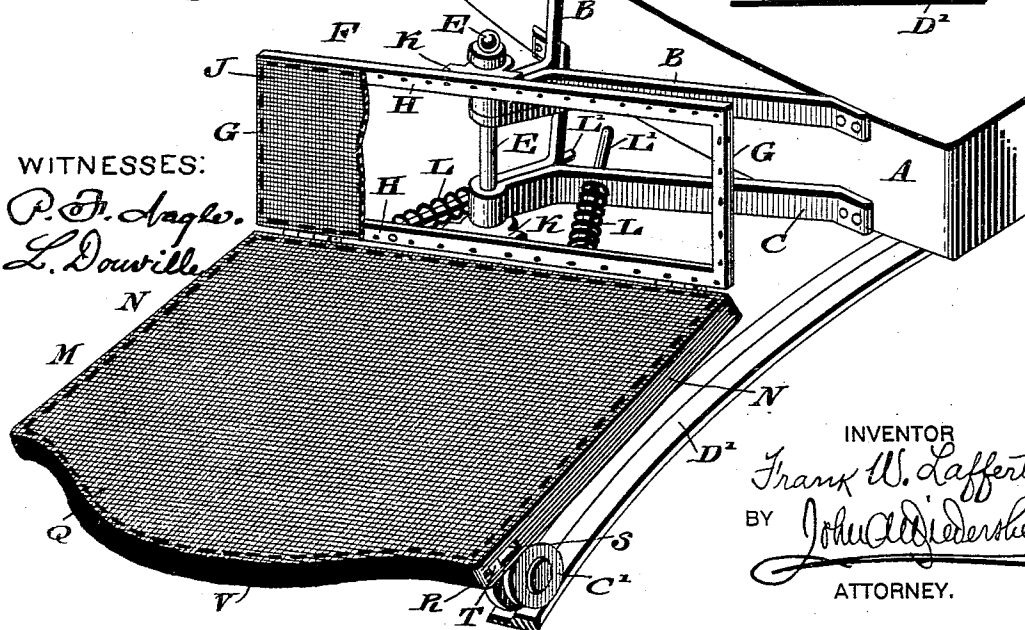
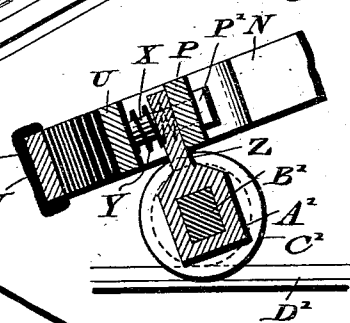


Fig. 3.



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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 555,382, dated February 25, 1896.

Application filed October 19, 1895. Serial No. 566,189. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. LAFFERTY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel construction of car-fender which is pivotally attached to the front end of the car in such manner that the forward portion of the fender is always only a short distance above the track and is enabled by means of the novel devices hereinafter referred to to follow every curvature of the track, said fender thus serving in every instance to positively pick up an object struck and so prevent the same from serious injury.

It also consists of novel construction of movable buffer for preventing shock or injury to the person struck.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a perspective view of a car-fender embodying my invention and a portion of the platform of a car to which the same is applicable. Fig. 2 represents a perspective view of the same, showing the position the parts assume in rounding curves. Fig. 3 represents a sectional view through a portion of the fender, showing the manner of supporting the forward end of the fender above the track and the construction of buffer employed.

Similar letters of reference indicate the corresponding part in the several figures.

Referring to the drawings, A designates the platform of a car, to the forward portion of which the braces or brackets B, C, and D are attached.

E designates a pin passing through the forward ends of said brackets and serving to support the fender proper, the same consisting of the frames F and M, which are hinged together, the said frame F consisting of the end pieces G and the sides H, upon which is secured the canvas or other material J, said frame F being provided with the lugs K, which extend laterally therefrom and are provided with eyes through which the pin E passes.

L designates springs, each of which have

one end abutting against the frame F on either side of the pin E, while the other ends are adapted to abut against a suitable fixed point, as the brace C, whereby the fender proper is enabled in every instance to follow every curvature of the track, no matter how sharp the same may be, as will be evident from Fig. 2, said springs being supported in position on the rods L', which pass freely through holes in the brackets C, said rods L' being pivotally attached to the frame F, the point of pivotal attachment not being shown.

The forwardly-projecting frame M consists of the sides N and the cross-pieces P, the rear-most cross-piece being hinged to the frame F. Q designates canvas or other suitable material which is attached to said frame M, as will be understood from Fig. 2.

R designates extensions or projections of the sides N, the same having the slots S therein, into which project the ends T of the cross-piece U, which latter has a curved strip or buffer V attached thereto, said strip being covered with rubber W or other suitable material, so that the object struck will not be injured.

X designates studs, which are attached to said cross-piece U and extend rearwardly therefrom through the adjacent end piece P, said studs being provided with heads P' and having also the springs Y interposed between the cross-pieces U and P.

Z designates arms attached to the forward cross-piece, P, from which depend the hangers A', in which latter are supported the transversely-extending rod B', upon the extremities of which are mounted the rollers C', which latter are adapted to contact with the track.

The operation is as follows: The parts are shown in their normal position in Figs. 1 and 2, and if an object is struck the force of the impact will be taken up by the yielding buffer V, and the object so struck will be caught up on the canvas Q and J, and so prevented from serious injury. I desire to call special attention to the fact that the fender is always in operative position, and that the buffer W is always but a few inches above the track, and that the frames F and M, which together constitute the fender proper, are, by reason of their pivotal attachment to the car and by

reason of the springs L, enabled to follow the curvature of the track in every instance, as will be understood from Fig. 2, this latter feature being one of great importance and one not attainable in the fenders now in use.

The fender can be readily attached to or disconnected from the car by removing the pin E, and, when it is desired, the frames F and M can be folded up against each other and there held by any suitable means.

I desire to call especial attention to the fact that no vibration of the car will be imparted to the frame M by reason of the pivotal attachment of the same to the frame F.

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

1. In a car-fender, a supporting-bracket adapted to be attached to the car, an upright frame pivotally mounted upon said bracket, a laterally-extending frame hinged to the former frame, rollers intermediate said laterally-extending frame and the car-track, and means for enabling said frames and rollers to follow every curvature of said track, said means consisting of rods connected with said upright frame and movable in openings in said bracket, and springs intermediate said frame and bracket, substantially as described.

2. In a car-fender, a supporting-bracket adapted to be secured to a car and having an eye therein, the frames F and M hinged to each other, apertured lugs attached to one of said frames, an upright connecting-pin, com-

mon to said lugs and bracket, rearwardly-extending rods pivoted to said frame F on opposite sides of said pin and passing through openings in said bracket, and springs on said rods intermediate said bracket and frame, substantially as described.

3. In a car-fender, the hinged frames F and M, with netting thereon, said frame F having rearwardly-projecting lugs adapted to be secured by a pin to brackets on a car-platform, the frame M having a cross-piece P with hangers thereon, a shaft mounted in said hangers carrying rollers, the curved buffer V with cross-piece U, the headed studs X secured to said piece U, and working in openings in the said cross-piece P, and springs bearing against said pieces P and L, said parts being combined substantially as described.

4. In a car-fender, the brackets B and C, the frame F having the lugs K, the pin E common to said lugs and brackets, the rods L', the springs L interposed between said frame and brackets, the frame M pivotally attached to said frame F, the cross-piece P, the slotted ends R, the cross-piece U having projections engaging said slots, the buffer V, the springs Y, the hangers A' attached to said frame M, the transverse rod or bar B' and the rollers C', substantially as described.

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Witnesses:

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