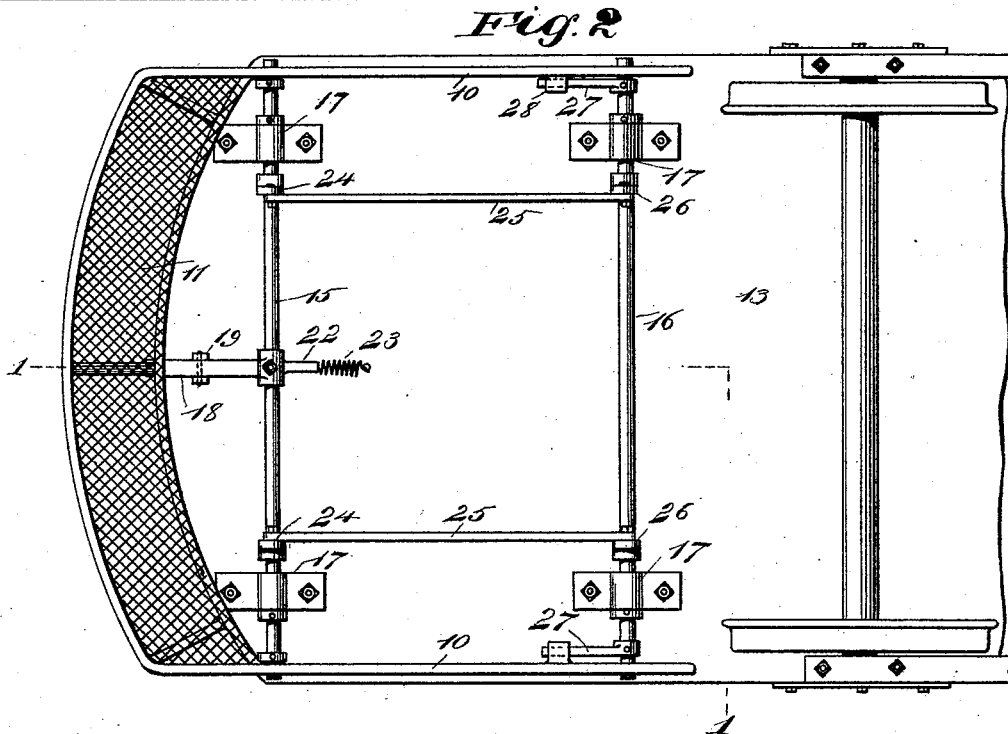
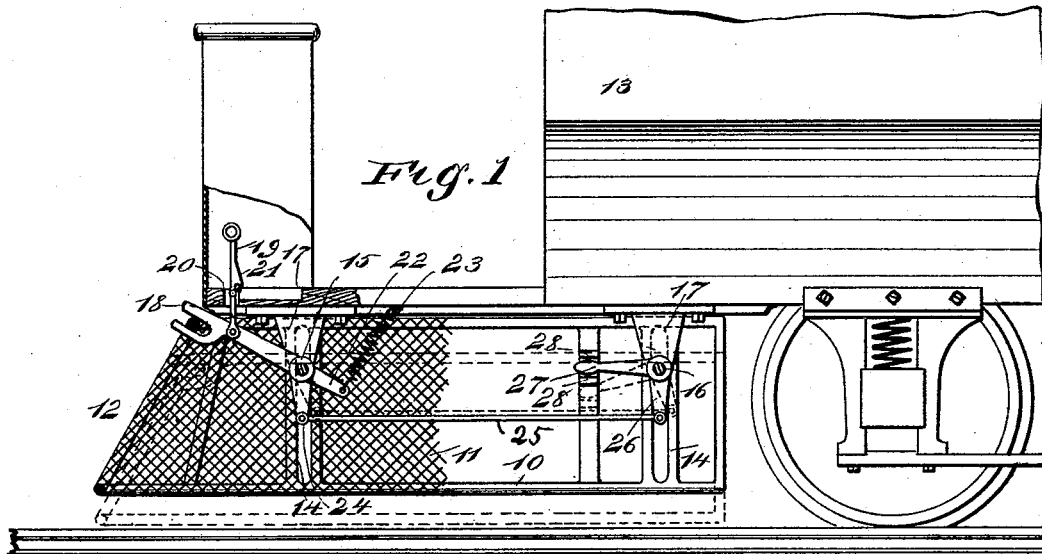


(No Model.)

W. V. CLEARY.  
CAR FENDER.

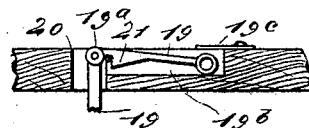
No. 522,449.

Patented July 3, 1894.



*Fig. 3*

WITNESSES:  
*J. A. Berghman*  
*L. Sedgwick*



INVENTOR  
*W. V. Cleary*  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM V. CLEARY, OF NEW YORK, N. Y.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 522,449, dated July 3, 1894.

Application filed November 25, 1893. Serial No. 491,994. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM V. CLEARY, of the city, county, and State of New York, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

My invention relates to improvements in car fenders, such as are used on the ends of street cars to prevent people from being caught beneath the cars and crushed by the wheels. In such devices it is necessary to have the fender supported somewhat above the track in order that it may pass over certain obstructions, but when thus arranged it permits the limbs and clothing of a person run down by the car to pass beneath it, so that the person is likely to be killed or severely injured.

The object of my invention is to obviate this difficulty and to produce a fender which is held normally at a little distance above the track but which can be instantly released by a person on the car, and when once released springs instantly downward into close contact with the track so that nothing can pass beneath it.

To this end, my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation, partly in section on line 1—1 of Fig. 2, and illustrates the application of my improved fender to a car. Fig. 2 is an inverted plan of the fender as applied to a car; and Fig. 3 is a detail sectional view of the catch rod and the means of folding it out of the way.

The fender may be of any ordinary shape and kind, but it is preferably made up of a light framework 10, of substantially the usual sort, which is covered with a netting 11 and has an inclined front end 12.

The fender is hung in the usual place beneath the platform of the car 13, and is provided near its front and rear ends and on opposite sides with vertically slotted side pieces or braces 14 to receive and slide on the ends of the shafts 15 and 16, these being supported

in hangers 17 on the car bottom and arranged parallel with each other, as the drawings clearly show. On the front shaft 15 is a forwardly projecting arm 18 which is preferably forked, as shown, so as to straddle the upper rail of the frame 10, but it may be connected with the rail in any way which will permit the arm to swing and press the rail and will also permit the arm to support the rail. Pivoted to the arm 18 is an upwardly extending rod 19 which projects through a hole 20 in the platform of the car and is provided, on one side, with a catch 21, adapted to engage the platform and, by raising the rod and engaging the catch with the platform the arm 18 and the fender are raised and supported, while by touching the rod with the toe so as to disengage the catch 21, the fender immediately drops to the position shown by dotted lines in Fig. 1. The catch rod is jointed in the middle, as shown at 19<sup>a</sup>, and when not in use may be folded into a recess 19<sup>b</sup> in the car platform and held there by a button 19<sup>c</sup> or equivalent fastening.

The fender would drop of its own weight, but to cause it to spring instantly to its lowest position, an arm 22 and spring 23 are employed, the arm extending rearward on the shaft 15 and forming practically a continuation of the arm 18, while the spring 23 is secured to the arm 22 and to the floor of the car. I do not limit myself to this particular arrangement for swinging down the fender, nor to the form of catch shown for holding up the fender, as any equivalent means for performing these functions may be employed without departing from the principle of my invention.

The shaft 15 is provided with depending crank arms 24, which connect by means of rearwardly-extending rods 25 with similar arms 26 on the shaft 16, so that the two shafts oscillate in unison. Projecting forward from the shaft 16, near opposite ends thereof, are arms 27 which enter between lugs 28 on the sides of the car fender, and the lugs thus act as abutments for the arms, which when they swing, cause the rear end of the fender to be raised or lowered, as the case may be; and it will be seen that by reason of the connection just described between the shafts 15 and 16, the movement of the arms 27 corresponds to

the movement of the forked arm 18, and hence the front and rear end of the fender are simultaneously and correspondingly moved.

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

1. The combination, with a car, of connected oscillating shafts supported beneath the car, a vertically movable fender hung beneath the car, spring depressed arms carried by the shafts and engaging the fender, and a catch to hold the fender up, substantially as described.

2. The combination, with the car, of parallel shafts supported beneath it, a fender held to slide vertically on the shafts, an operative connection between the shafts whereby they turn in unison, arms connecting the shafts with the fender, a spring for depressing the arms, and a catch rod connected with one of the arms and extending upward through the car floor, substantially as described.

3. The combination with a car, of a safety

fender movable up and down in relation to the car, a forwardly projecting arm carried by a support arranged beneath the car, the said arm engaging the fender, an upwardly extending rod pivoted to said arm, a catch for holding the rod in an elevated position, an arm extending rearwardly from said support, and a spring arranged to pull the end of said rearwardly extending arm upward and lower the forwardly extending arm and fender when the catch is released, substantially as described.

4. The combination with a car, of shafts supported beneath the car, a vertically movable fender having vertically slotted side pieces to receive the ends of the shafts and slide upon them, and means for raising and lowering said fender, substantially as shown and described.

WILLIAM V. CLEARY.

Witnesses:

WARREN B. HUTCHINSON,  
E. M. CLARK.