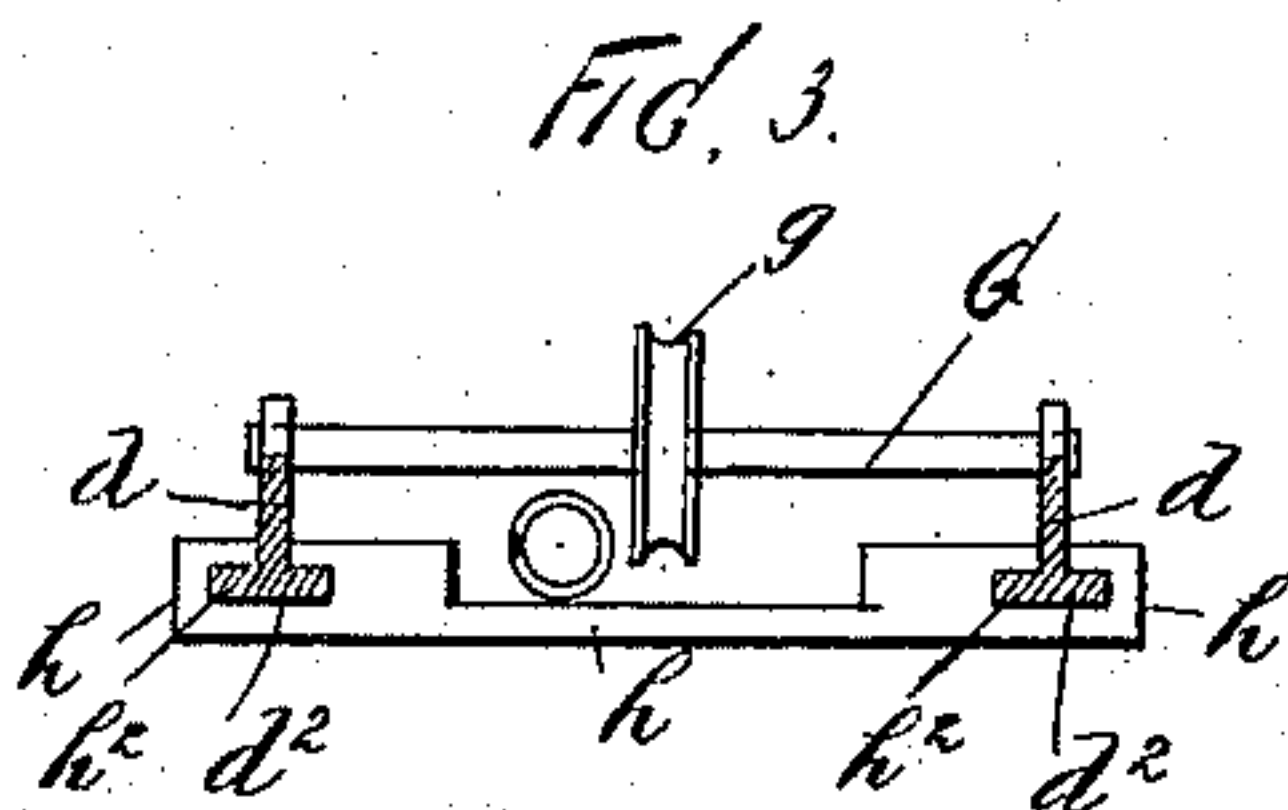
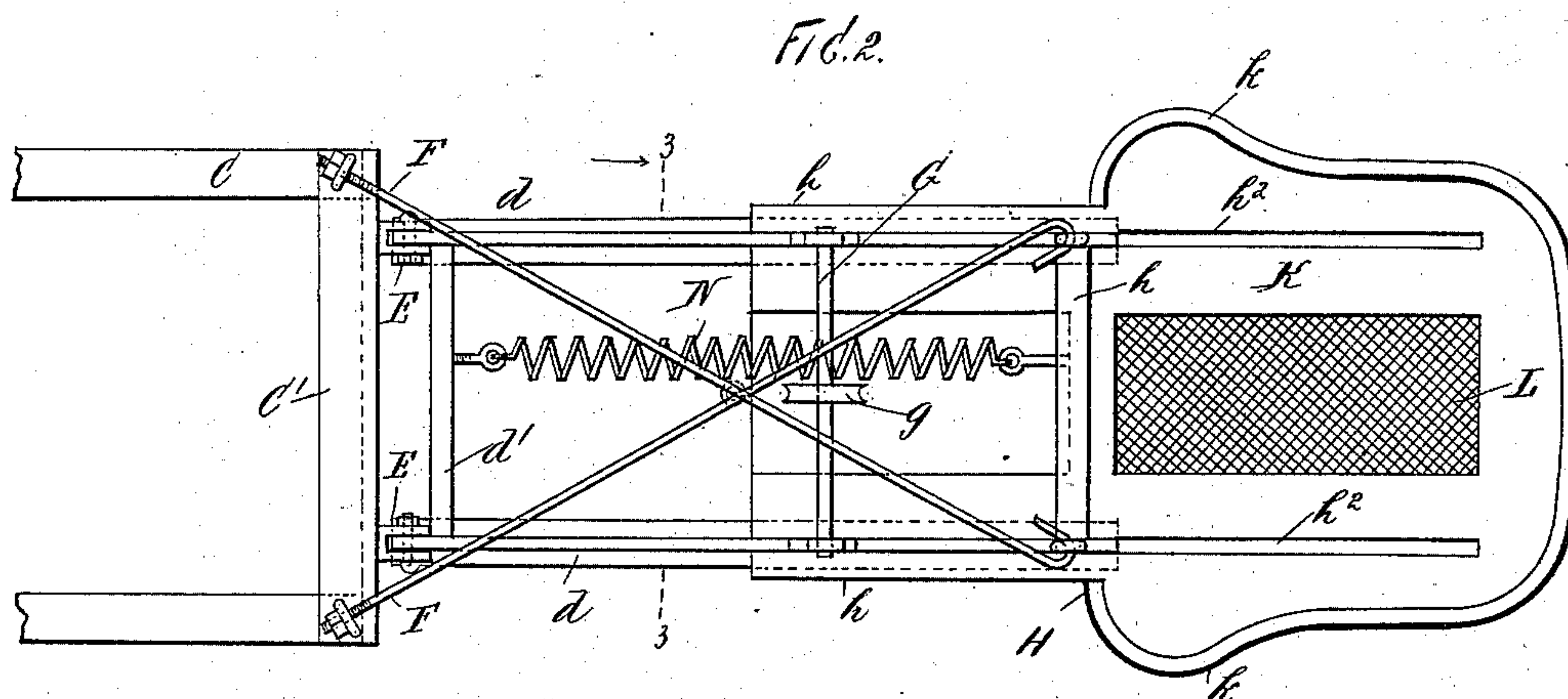
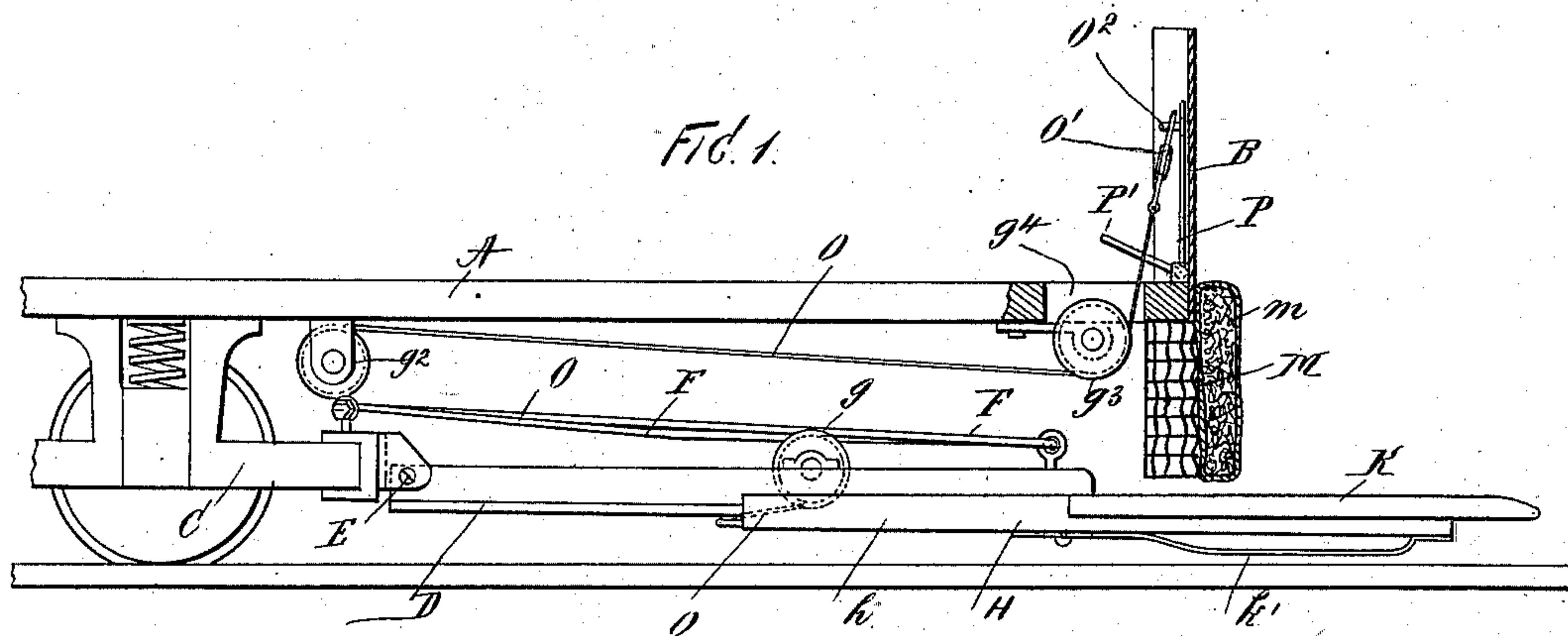


(No Model.)

W. CHRISTIAN.  
CAR FENDER.

No. 562,457.

Patented June 23, 1896.



**WITNESSES:**

John Buckler,  
C. Gerstb.

***INVENTOR***

William Christian  
BY  
Edgar Tate Ho

ATTORNEYS



# UNITED STATES PATENT OFFICE.

WILLIAM CHRISTIAN, OF EAST ORANGE, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO ISAAC GASTON, OF NEWARK, NEW JERSEY.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 562,457, dated June 23, 1896.

Application filed October 7, 1895. Serial No. 564,862. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CHRISTIAN, a citizen of the United States, and a resident of East Orange, in the county of Essex, in the State of New Jersey, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to fenders or guards for tramway-cars, and the object thereof is to provide an effective device of this class which is simple in construction and operation, and well adapted to accomplish the result for which it is intended.

My improved fender or guard comprises a stationary frame, which is suitably supported below the platform of a car, and a sliding frame or fender, which is mounted thereon and adapted to be projected in front of the car, and to be withdrawn beneath the platform thereof, when desired, and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of a portion of one end of a car and the platform thereof, showing my improved fender or guard connected therewith, parts of the construction being shown in section; Fig. 2, a plan view of my improved fender or guard, showing also the means for connecting it with the truck-frame of the car; and Fig. 3, a section on the line 3 3 of Fig. 2, the platform of the car and the rods by which the stationary frame of the fender is supported being omitted.

In the drawings forming part of this application, A represents the platform of a car, B the dashboard thereof, and C the part of the truck-frame which preferably comprises the side bars C and the end cross-bar C', as shown in Fig. 2.

In the practice of my invention, I pivotally connect with the forward end of the truck-frame a stationary frame D, which comprises side bars  $d$  and a rear cross-bar  $d'$ . The side bars  $d$  are composed, preferably, of angle-iron, and the frame D is pivotally connected with the truck-frame at E, and the forward end

thereof is supported by means of cross-rods F, which are pivotally connected therewith, and connected with the end of the truck-frame, as clearly shown in Figs. 1 and 2.

Mounted in the side bars  $d$  of the stationary frame D is a cross-rod or shaft G, on which is mounted a pulley  $g$ , and mounted in hangers at the rear end of the platform and above the rear connection of the frame D is a pulley  $g^2$ , and a similar pulley  $g^3$  is mounted below the forward end of the platform and immediately under or within a slot  $g^4$ , formed therein.

The sliding frame H, or fender proper, is composed of side bars  $h$  and cross-bars  $h'$ , and said side bars are provided with longitudinal slots  $h^2$ , adapted to receive the base-plate  $d^2$  of the side bars  $d$  of the stationary frame D, as clearly shown in Fig. 3, and the said sliding frame H is provided at the forward end thereof with an enlarged section K, the sides thereof being extended, as shown at  $k$ , and curved in any desired manner, the object of the enlarged or widened portion being to extend the frame even with or beyond the sides of the car.

The central portion L of the front end K of the sliding frame H is composed of wire mesh or similar material, and I also preferably secure to the forward end of the platform a frame M, the back of which is composed of wire mesh or similar material, and the front of which is provided with upholstery  $m$ , or otherwise padded, as may be desired.

Secured to the forward cross-rod  $h$  of the sliding frame H is a strong spiral spring N, one end of which is secured to the rear cross-rod  $d'$  of the stationary frame D, and secured to the rear cross-rod  $h$  of the sliding frame H, and preferably near the middle thereof, is a cord, rope, cable, or chain O, which passes around the pulley  $g$ , backwardly around the pulley  $g^2$ , and thence forward and around the pulley  $g^3$ , and upwardly through the slot  $g^4$  in the platform of the car, and the end thereof is provided with a ring or loop O', which is adapted to be connected with a hook or projection O<sup>2</sup>, connected with the platform of the car, and pivotally connected with the dashboard of the car, and adjacent to the dashboard B, is a crank-lever P, which extends



upwardly and is provided with a slot (not shown) through which the hook or projection passes, and the other end of said crank-lever P projects backwardly, as shown at P', and is adapted to be operated by foot, so as to cause the lever P to throw off the ring or loop O' from the hook or projection O<sup>2</sup> in the operation of the device, as hereinafter described.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings. The sliding frame H or fender proper is projected in front of the car by pulling on the rope or chain O from the platform thereof, and it is retained in the projected position by means of the ring or loop O', which is connected with the hook or projection O<sup>2</sup> for this purpose, and whenever it is desired that the sliding frame H be withdrawn beneath the platform the said ring or loop O is detached from the hook or projection O<sup>2</sup>, either by hand or by the crank-lever P, and the spring N will at once withdraw the sliding frame beneath the platform, as will be readily understood.

The lower part of the forward end K of the sliding frame H is provided at each side with a curved plate-spring K', said spring being adapted to come in contact with the ground or with the rails of the track, and to form buffers or supports for the sliding frame if a person or object should be struck thereby when the car is in motion, and it will be readily understood that if a person or object should be struck by my improved fender or guard when the car is in motion said person or object will be received upon the projected end K of the sliding frame H, and the passing of said person or object beneath the car will be thus prevented.

The object of the upholstery or packing m is to prevent the injury of the person, if thrown against the end of the platform, and it will thus be seen that I accomplish the object of my invention by means of a device which is simple in construction and operation, while being at the same time comparatively inexpensive.

My invention is not limited to the exact form, construction, and arrangement of parts shown and described, and I therefore reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

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

1. The combination with the platform of the car of a guard or fender consisting of a stationary frame formed of side bars having flanges and a rear cross-bar, and which is pivoted to the truck of the car, the same being supported by cross-rods connecting the front thereof with said truck, a sliding fender secured to said stationary frame composed of side and cross bars, the former having longitudinal slots to engage the flanges upon the

side bars of the stationary frame, said fender being provided at the forward end thereof with an enlarged section, the side bars of which are extended beyond the sides of the car, the central portion of which is composed of wire mesh and means for moving the fender before or beneath the car, substantially as described.

2. The combination with the platform of a car of a guard or fender consisting of a stationary frame formed of side bars having flanges and a rear cross-bar and which is pivoted to the truck of the car, the same being supported by cross-rods connecting the front thereof with said truck, a sliding fender secured to said stationary frame composed of side and cross bars, the former having longitudinal slots to engage the flanges upon the side bars of the stationary frame, said fender being provided at the forward end thereof with an enlarged section, the side bars of which are extended beyond the sides of the car, the central portion of which is composed of wire mesh and a frame, the back composed of wire mesh, the front being padded, secured to the platform above the fender and means for moving the fender before or beneath the car, substantially as described.

3. The combination with the platform of a car of a guard or fender consisting of a stationary frame formed of side bars having flanges and a rear cross-bar, and which is pivoted to the truck of the car, the same being supported by cross-rods connecting the front thereof with said truck, a sliding fender secured to said stationary frame composed of side and cross bars, the former having longitudinal slots to engage the flanges upon the side bars of the stationary frame, said fender being provided at the forward end thereof with an enlarged section, the side bars of which are extended beyond the sides of the car, the central portion of which is composed of wire mesh and a frame the back composed of wire mesh, the front being padded, secured to the platform above the fender said frame having a cross-rod carrying a pulley, a pulley mounted in hangers upon the rear end of the platform, another pulley upon the forward end of the platform beneath a slot formed therein, a cord connected to the rear cross-rod of said frame and passing over said pulleys and removably connected to the dashboard of the car, a spring connected to the cross-rod of the fender and to the rear cross-rod of the frame to draw the former beneath the car and a crank-lever to release the cord, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 2d day of October, 1895.

WILLIAM CHRISTIAN.

Witnesses:

JOHN M. ARTHUR,  
CHAS. E. METZ.