

(No Model.)

2 Sheets—Sheet 1.

R. POLLARD.
LIFE GUARD FOR STREET CARS.

No. 550,421.

Patented Nov. 26, 1895.

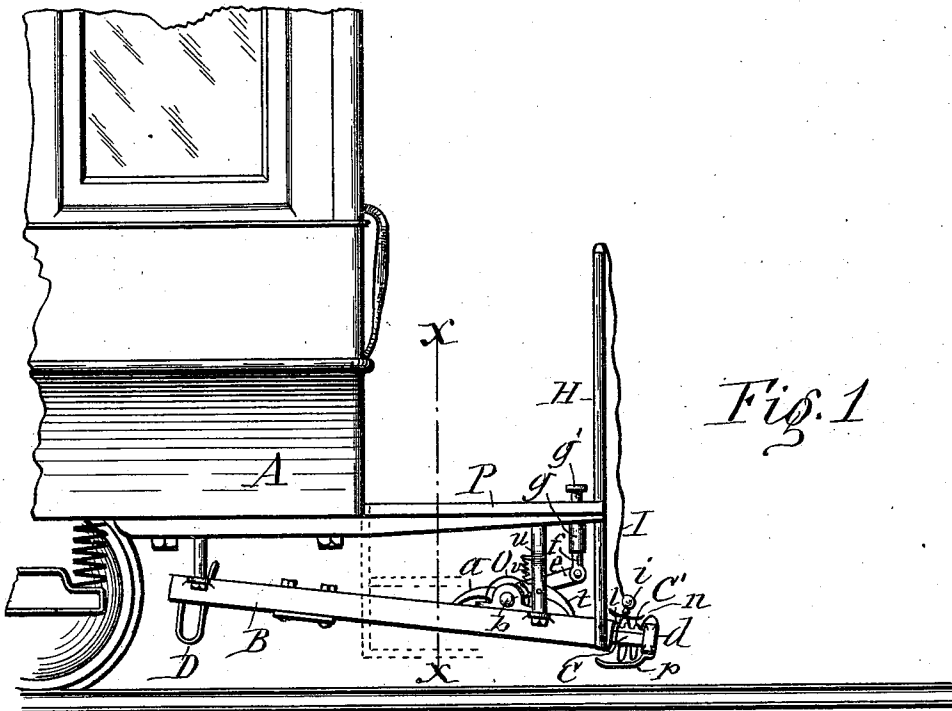


Fig. 1

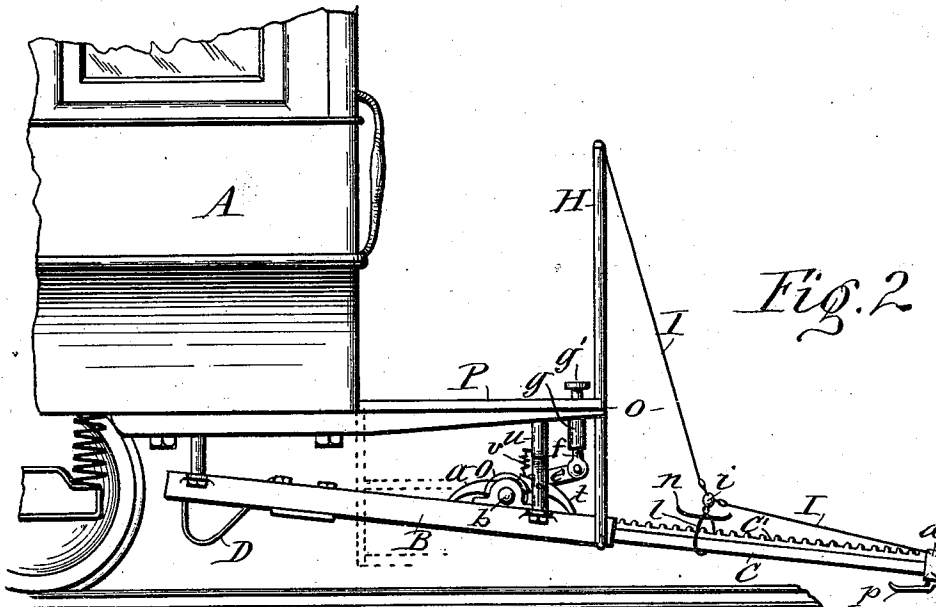


Fig. 2

WITNESSES:

C. E. Tomlinson
C. L. Bendixen

INVENTOR:

Richard Pollard
By E. Laass
his ATTORNEY

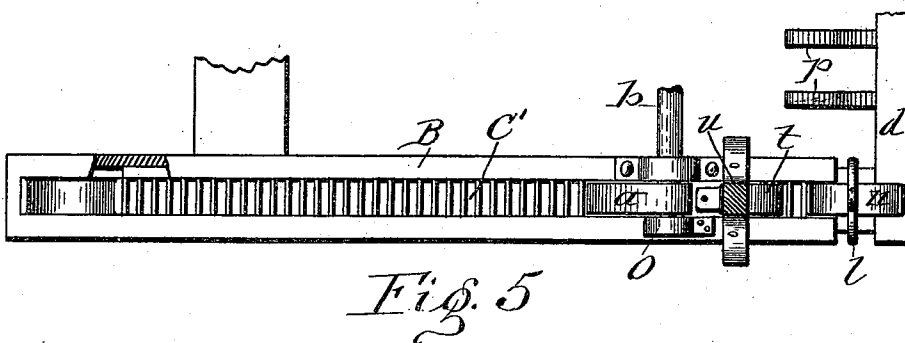
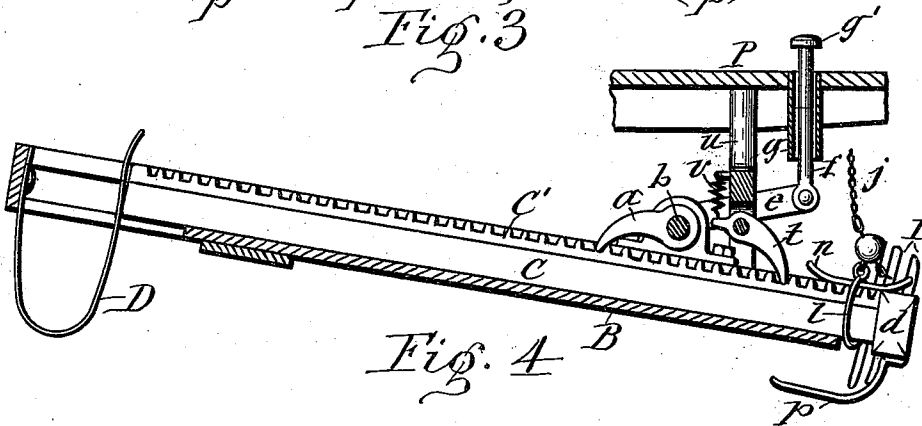
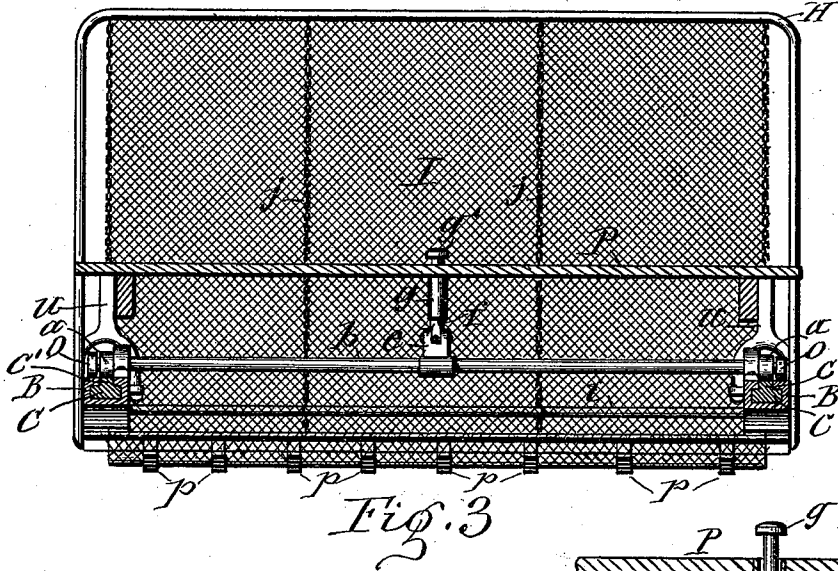
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UNITED STATES PATENT OFFICE.

RICHARD POLLARD, OF SYRACUSE, NEW YORK.

LIFE-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 550,421, dated November 26, 1895.

Application filed March 18, 1895. Serial No. 542,170. (No model.)

To all whom it may concern:

Be it known that I, RICHARD POLLARD, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Life-Guards for Street-Cars, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to fenders or life-guards secured to the front ends of electric cars and cable cars for the purpose of guarding against accidents of running over persons on the car-tracks.

The object of the invention is to provide a fender which shall more positively pick up a person in front of a car in transit and land said person safely upon an apron supported in front of the car, upon which apron the said person is carried along without serious injury to the person; and to that end the invention consists, essentially, of a fender connected to the car movable longitudinally to and from a forwardly-projecting position, so that in its forward movement it picks up the person on the track in front of the car as aforesaid; and the invention also consists in certain novel features of the details of the fender and auxiliary devices connected therewith, as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figures 1 and 2 are side elevations of an end portion of a car equipped with my improved fender and showing the same in the two positions to which it can be adjusted. Fig. 3 is a vertical transverse section on line *x x* in Fig. 1, viewed toward the front of the car. Fig. 4 is a vertical longitudinal section taken along the side of one of the racks which carry the front end of the fender, and Fig. 5 is a plan view of said rack.

Similar letters of reference indicate corresponding parts.

A represents one of the end portions of a street-car, to opposite sides of which are secured longitudinal guides B B. In each of these guides slides a longitudinal bar C, the top of which is either formed with or has fastened to it a rack C'. At the rear end of each guide B is a suitable spring D, which becomes compressed by the rear end of the bar C bearing on said spring when the bar is pushed

back, as represented in Fig. 1 of the drawings.

To retain the bars C C in their retracted or rearmost position, I employ suitable detents, which are under control of the person controlling the propulsion of the car. For this purpose I preferably form said detents of dogs or braces *a a*, attached to a bar *b*, which is pivoted at its ends to suitable supports on the top of the guides B B. Said detents are inclined rearward from the bar *b*, and are made to bear on the racks by a spring *o*, attached to the bar *b* and to one of the guides and exerting its force on the bar in such direction as to cause the same to hold the detents in the aforesaid position. By releasing the racks from the detents the rack-bars C C are forced forward to the position shown in Fig. 2 of the drawings by the action of the springs D D.

For releasing the racks, as aforesaid, I attach to the cross-bar *b* a lever *e*, to the free end of which is connected a push-bar *f*, which slides in a sleeve *g*, depending from the platform P. In the upper end of said sleeve is inserted the stem of a step *g'*, said stem bearing on top of the bar *f*, and when depressed by the foot of the motorman it turns the cross-bar *b*, so as to throw the detents out of the racks C' C'.

I represents the fender-apron, which is preferably formed of stout flexible wire-netting. This apron is secured at its front end to a cross-bar *d*, attached to the front ends of the rack-bars C C. The opposite end of said apron is attached to the top rail of the dashboard H or to some other suitable fixed support a proper distance above the racks and preferably above the platform P of the car. To properly support the central portion of the apron, I secure to said portion a cross-bar *i*, and extend lengthwise of the apron the chains *j j*, (shown clearly in Figs. 3 and 4,) which are directly under the apron and secured to the front cross-bar *d*, rear supporting-rail, and intermediate cross-bar *i*. The apron is of sufficient length to allow it to sag, as shown in Fig. 2 of the drawings, and in order to cause the portion of the apron between the cross-bar *d* and *i* to be drawn to some degree toward a horizontal position and at the same time incline the upper portion of the apron sufficiently to leave ample space between the

apron and platform P, as shown at *o* in Fig. 2 of the drawings, I attach to the ends of the intermediate cross-bar *i* wire loops or suitable hoops *l*, which loosely embrace the rack-bars C. The described position of the apron is very important for this reason—viz., when a person is thrown upon the apron by the front cross-bar *d* striking the person crossing the track the head of said person strikes the rear portion of the apron, and this prevents the head from striking the platform P.

To guard against the catching of the hoops *l* on the teeth of the racks C' during the operation of pushing said racks back to the position shown in Fig. 1 of the drawings, I place under the top portions of said hoops the shoes *n*, secured to the cross-bar *i*.

To lock the described fender in its forward projecting position so as to resist the shock incident to its collision with a person crossing the track, I pivot the dogs *t t* to suitable supports *u u*, rigidly attached to the car or track. Said dogs are inclined toward the front ends of the racks and held in engagement with said racks by suitable springs *v*.

The operation of the fender is as follows: In case a person crosses the track in front of the car running at high speed, the motorman presses with his foot upon the stop *g'*, and thereby releases the racks C' from the detents *a*. The springs D then force the rack-bars forward, and impart to them such an impulse as to cause the fender to be carried into its forwardly-projecting position, in which it is retained by the dogs *t*. The fender can subsequently be pushed back by hand after throwing the dogs out of engagement.

To the cross-bar *d* are secured rearwardly-projecting fingers *p* to support the folded portion of the apron when the fender is pushed back.

What I claim as my invention is—

1. The combination, with a street-car, of longitudinal guides, racks sliding in said guides, a cross-bar connected to the front ends of said racks, a fender-apron connected at one end to said cross-bar and at the rear end to a support on the car, springs forcing the racks forward, dogs locking the racks in

their forward position, and detents holding the racks in their retracted position as set forth.

2. The combination, with a street-car, of longitudinal guides, racks sliding in said guides, a cross-bar attached to the front ends of the racks, a fender-apron attached at one end of said cross-bar and at the opposite end to a support fixed to the car above the racks, springs forcing the racks forward, a rocker-bar extending across the two racks, detents attached to said bar and retaining the racks in their retracted position, and a manually controlled lever operating said rocker-bar as set forth.

3. The combination, with a street-car, of longitudinal bars extending from the end of the car, a cross-bar attached to the front ends of said longitudinal bars, a plurality of chains extending from said cross-bar to a fixed support on the car above the longitudinal bars, an intermediate cross-bar connected to the chains to space the same, and a fender-apron extending from the front cross-bar to the aforesaid support on the car and supported intermediately by the chains as set forth.

4. The combination, with a street-car, of longitudinally movable racks on opposite sides of the car, springs forcing said racks forward, manually controlled detents retaining the racks in their retracted position, dogs locking the racks in their forward position, a cross-bar attached to the front ends of the racks, a plurality of chains extending from said cross-bar to a fixed support on the car above the racks, an intermediate cross-bar attached to said chains, a fender-apron over the chains and attached at opposite ends to the aforesaid cross-bar and chain-support, links suspended from the intermediate cross-bar and loosely embracing the racks, and shoes on the latter cross-bar and sliding on the racks substantially as set forth.

In testimony whereof I have hereunto signed my name this 14th day of March, 1895.

RICHARD POLLARD. [L. S.]

Witnesses:

C. E. BENDIXON,
C. E. TOMLINSON.