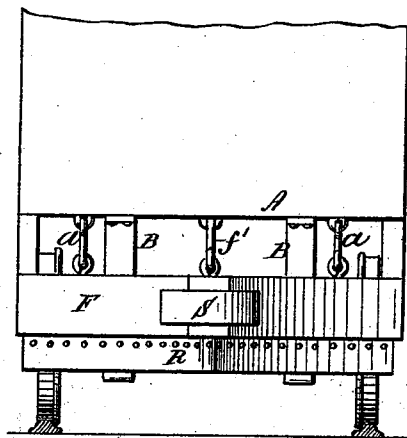


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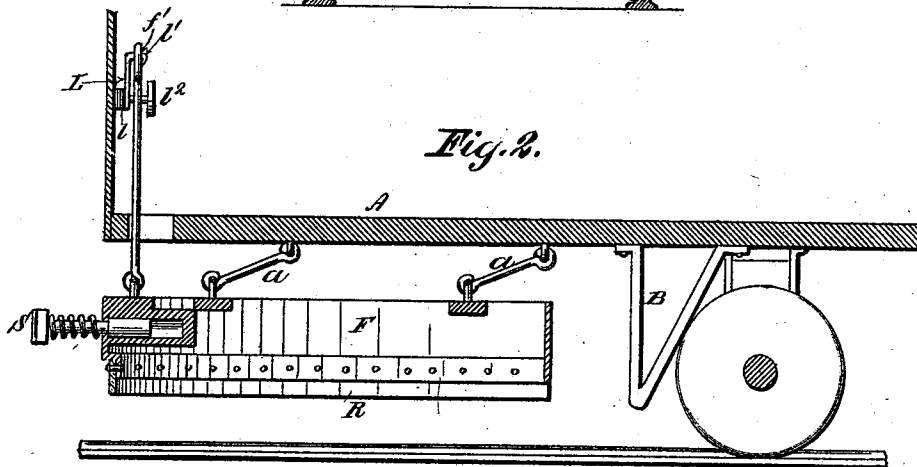
No. 519,402.

Patented May 8, 1894.

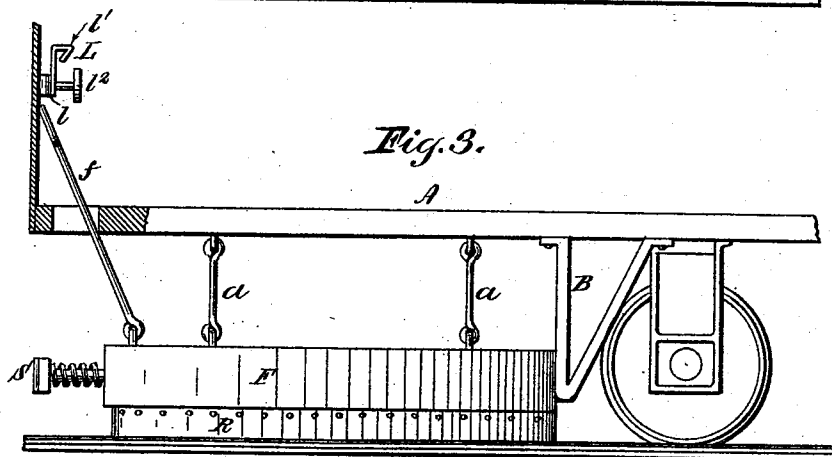
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:  
O. W. Gardner  
Fedor Heitz

Inventor:  
James Campbell  
By his Attorney,  
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(No Model.)

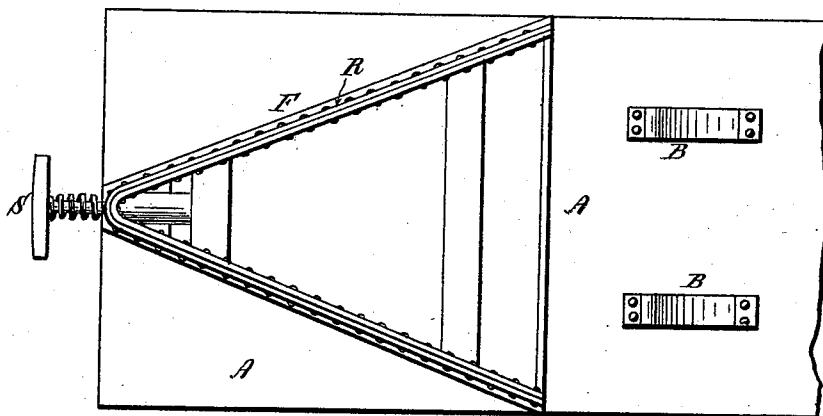
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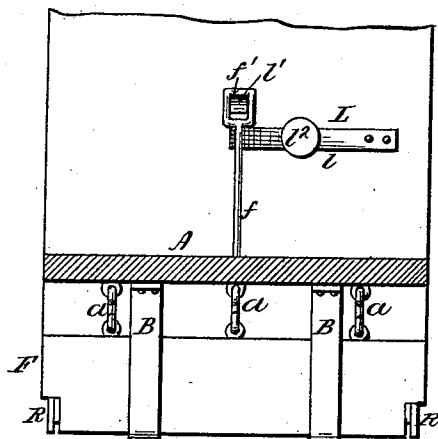
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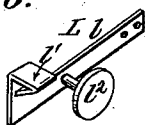
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



Witnesses:

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Inventor:

James Campbell

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# UNITED STATES PATENT OFFICE.

JAMES CAMPBELL, OF BROOKLYN, NEW YORK.

## LIFE-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 519,402, dated May 8, 1894.

Application filed September 21, 1893. Serial No. 486,059. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES CAMPBELL, a citizen of the United States, residing in the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Life-Guards for Street-Cars, of which the following is a specification, sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My improvements relate more especially to fenders or guards for trolley, cable or other street railway cars, although applicable to other vehicles.

The object is to afford an effective guard against the admission of a body beneath the vehicle in front of the forward wheels thereof, the fender being released or set for this purpose either by the motor man, or should he fail to do so, automatically by contact with the object to be excluded.

The invention consists in the special construction and arrangement of parts herein described and claimed.

Figure 1, is an elevation of a portion of the front of a car provided with my improved life guard. Fig. 2, is a central vertical sectional elevation of the same, with the guard elevated. Fig. 3, is a side elevation of the same, showing the guard lowered; Fig. 4, a plan of the under side of the forward end of the car; Fig. 5, an elevation of the rear side of the dash board, &c. Fig. 6, is a perspective view of the spring latch.

A, represents the body of the car, motor, truck or other form of vehicle to which my life guard may be applied. The life guard consists essentially of a fender F, preferably V shaped in front, although its front side may be rounded or curved, or otherwise modified in outline if desired. The fender is attached to the bottom of the car or vehicle body A, by three or more links or suspenders  $a, a, a$ , which allow the fender to swing vertically. The front end of the fender is provided with a rod  $f$ , or equivalent, by which the fender is raised, and coupled to the latch L, above the floor of the vehicle. This latch L, consists primarily of a bolt  $l$ , upon which the end of, or a shoulder  $f'$  upon, the rod  $f$ , rests when

the fender F, is elevated and in its normal condition, as shown in Fig. 2. The latch bolt  $l$ , is so formed that it will allow the rod shoulder  $f'$ , to slide off of it under the influence of the fender F, should the latter encounter any resistance to its advance with the body of the car. Thus should a person or obstacle fall in front of the fender F, the contact of the latter therewith would cause the fender to swing backward withdrawing the rod shoulder  $f'$ , from the latch bolt  $l$ , and carrying the fender backward until its rear side rested against the braces B, B, which not only admit the motion of the fender but also reinforce and sustain it in its lower position.

To enable the motor man or operator to trip the fender into position in the presence of danger, the latch L, is preferably a spring latch, the bolt  $l$ , being attached to or forming a part of the flat spring  $l'$ , secured to the rear of the dash board or other suitable support. This enables the operator to depress or shove back the bolt  $l$ , out of engagement with the rod  $f$ , allowing the fender to swing downward until it rests against the braces B, B, as before set forth. To facilitate this action the spring latch may be formed with a bearing  $b$ , arranged conveniently for the knee or foot of the operator. It is obvious that the form of latch and the means of holding the fender F, up in its normal position may be varied by the substitution of other well known or equivalent means for securing the same result. The forward end of the fender F, is provided with a spring buffer S, which is designed to receive and neutralize the shock in case of collision with objects which may fall in front of the car. The lower edges of the fender F, are flanged with rubber or other elastic material R, which makes a close, joint with the surface of the ground when the fender is lowered and thereby prevents the possibility of even comparatively small objects getting under the fender, since any resistance encountered by the fender simply increases the pressure with which it bears down against the ground.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a life guard for street cars, &c., the combination of a V-shaped fender suspended

on links; a lifting rod formed with a shoulder; and a spring latch, upon the body of the car, for engaging said shoulder on the rod and holding it and said fender in an elevated position, substantially in the manner and for the purpose described.

2. In a life guard for street cars, &c., the combination of a V-shaped fender suspended on links; a lifting rod formed with a shoulder; a support, upon the body of the car, for

engaging said shoulder and holding it and said fender in an elevated position; and stationary back rests upon the bottom of the car, for reinforcing and sustaining the fender in its lowest position, substantially in the manner and for the purpose described.

JAMES CAMPBELL.

Witnesses:

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D. W. GARDNER.