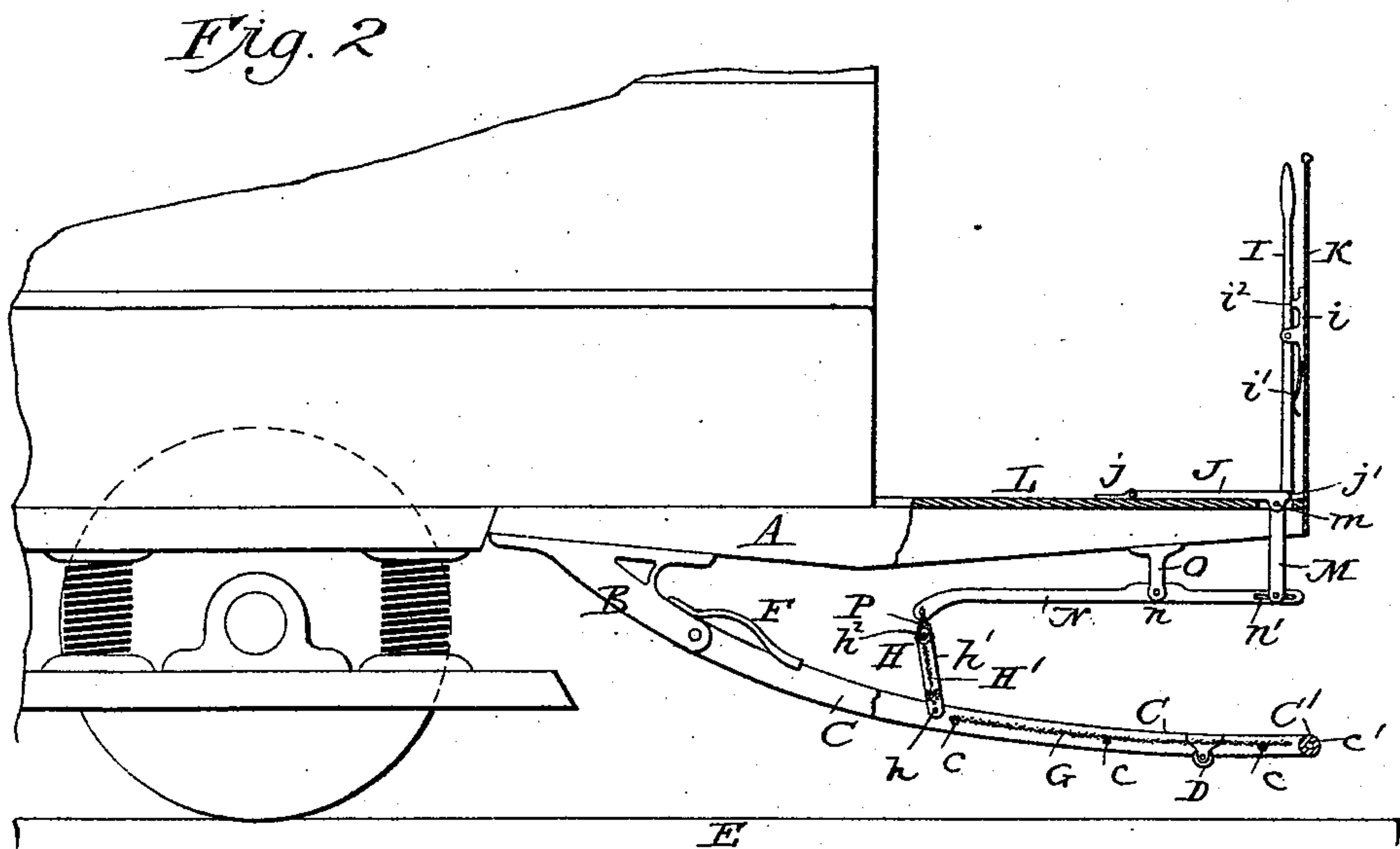
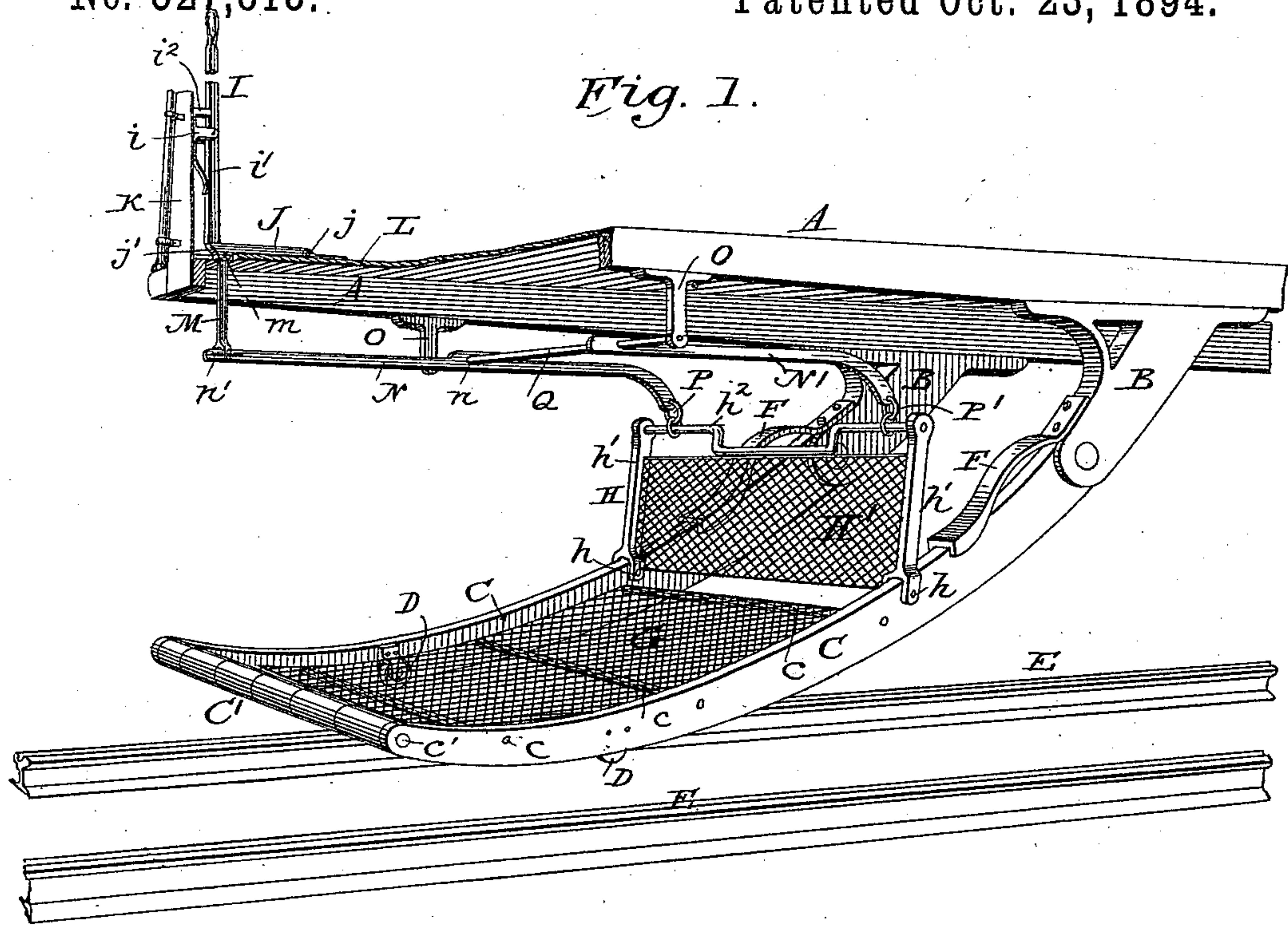


(No Model.)

J. F. RYAN.  
LIFE GUARD FOR STREET CARS.

No. 527,813.

Patented Oct. 23, 1894.



Witnesses,  
*Sidney P. Hollingsworth*  
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# UNITED STATES PATENT OFFICE.

JOHN F. RYAN, OF TORONTO, CANADA.

## LIFE-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 527,813, dated October 23, 1894.

Application filed December 9, 1893. Serial No. 493,263. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. RYAN, a subject of the Queen of Great Britain, residing at Toronto, in the county of York, Province of Ontario, Canada, have invented certain new and useful Improvements in Life-Guards for Street-Cars, of which the following is a specification.

The object of my invention is to provide an improved life guard for street cars, that is efficient in operation and may be easily adjusted into and out of working position.

In the accompanying drawings illustrating my invention, Figure 1 is a perspective view of so much of the platform of a street car with my improvements attached as is necessary to illustrate the novel features of my invention. Fig. 2 is a side elevation of a part of a street car with my improved life guard attached.

To the platform A, are secured on opposite sides depending brackets or hangers B, to which are pivoted the upper ends of curved side bars C, of the life guard frame. These side bars are connected by cross rods c at various points and at their outer ends by a rod c', on which are mounted a series of rollers C', which may be covered on their outside with leather, rubber or similar material. Near their lower, outer ends, the side bars C, carry rollers D, adapted to run on the rails E.

Springs F, secured to the brackets B, bear upon the side bars C, and tend to depress the guard frame and when depressed hold the rollers on the rails E.

A suitable covering G, such as wire netting or the like, may be placed over the connecting rods c, between the side bars C, of the frame.

Near the upper or inner end of the guard frame I employ a supplemental vertical frame H, hinged at h to the side bars C. The frame is composed of rods h' hinged at h, as above described, and connected at their upper ends by a cross bar h<sup>2</sup>. This frame is also provided with wire or other netting H', between the side and top bars.

In order to raise, lower and lock the life guard, I employ a hand lever I, and a foot lever J. The hand lever I, is pivoted to a bracket i, on the dash board K. A spring i', secured to the bracket and interposed be-

tween the dash board and the hand lever holds the latter in position to engage with the foot lever J, as indicated in Fig. 2. A stop i<sup>2</sup> limits the inward movement of the upper end of the hand lever. The foot lever or pedal J, is pivoted or hinged at j, to the platform L, its front end j' being adapted to be engaged by the lower end of the hand lever I.

To the outer end of the foot lever is pivoted at m, a depending link M, which is pivoted to a lever N, fulcrumed at n, in a hanger or bracket O. The lever N is slotted at n' where it connects with the link M. The lever N, is extended rearwardly over the life guard and connects by flexible connections or rings P with the top rod h<sup>2</sup> of the frame H. About midway between its ends, the lever N, is secured to a rod Q, which connects it with the front end of another lever N', which is flexibly connected at P' to the opposite end of the top rod h<sup>2</sup>. The rod Q, is supported in brackets O, at opposite sides of the car.

When the life guard is elevated above the track, the different parts of the mechanism are in the position shown in the drawings, the hand lever I, engaging at its lower end with the foot lever J, but when the hand lever I is turned to release it from the foot lever J, the latter rises, as the life guard descends and rests upon the track. The life guard descends either by reason of its own weight, or by means of the springs F. I find it advisable to employ the springs F to assist in causing the guard to descend, and also, especially, to hold the guard on the track while the car is moving.

By these improvements, obstructions of all kinds are removed from the track, and either caught in the netting and held, or deflected to one side. The arrangement is such that persons overtaken on the track and disabled, are caught by the life guard and carried along with the car until it is stopped.

I claim as my invention—

1. The combination, substantially as hereinbefore set forth, of a platform, a life-guard frame pivotally connected at its rear end to the under side of the platform, a foot lever or pedal for raising the life-guard frame, a link connected to the front end of the pedal, a lever connected to the lower end of the link extending backwardly and connected to the



life-guard frame in front of its pivotal connection with the platform, and a hand lever for operating the pedal when it is depressed.

2. The combination, substantially as here-  
5 inbefore set forth, of the platform, the hang-  
ers or brackets secured to the under side  
thereof, the side bars of the life guard frame  
pivotaly connected with the hangers, rollers  
carried by the side bars and adapted to ride  
10 on the rails of the track, a covering for the  
frame, the vertical frame hinged near the  
rear or inner ends of the side bars, a pedal, a  
lever connected at its front end with the pedal  
and at its rear end with the vertical frame,  
15 and a hand lever for locking the pedal.

3. The combination, substantially as here-  
inbefore set forth, of the platform, the life  
guard frame pivotaly connected therewith,  
rollers carried by the frame, springs bearing

upon the life-guard frame for depressing or 20  
holding it down, levers for raising the frame  
from its depressed position, and a hand lever  
for locking the frame operating mechanism.

4. The combination, substantially as here-  
inbefore set forth, of the platform, the hang- 25  
ers or brackets, the side bars secured thereto,  
springs secured to the brackets and bearing  
on the side bars, a foot lever or pedal, levers  
and rods connecting the pedal with the life  
guard frame, and a hand lever for locking the 30  
pedal.

In testimony whereof I have hereunto sub-  
scribed my name.

JOHN F. RYAN.

Witnesses:

J. W. RYAN,  
A. E. BAKER.