

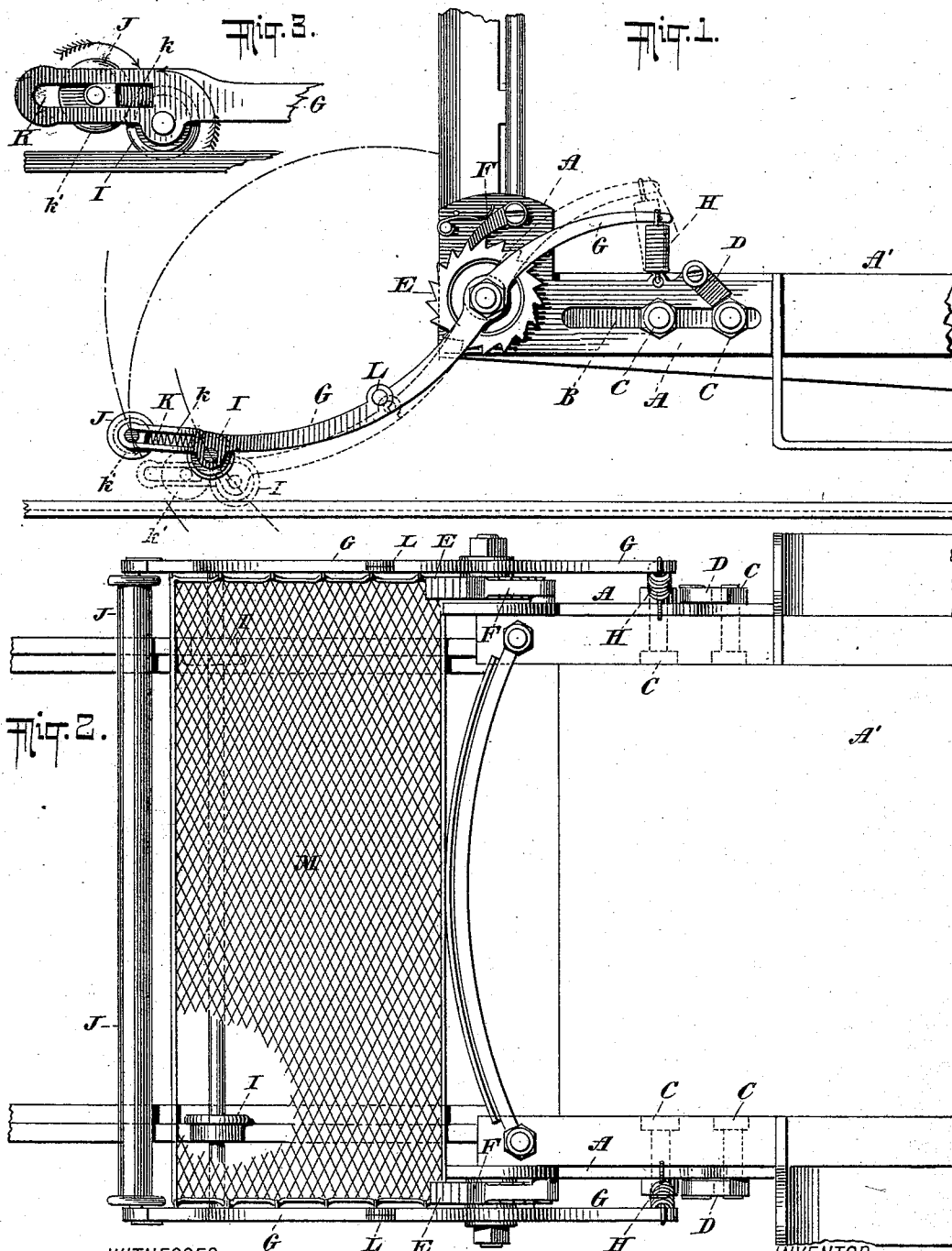
(No Model.)

W. H. RODGERS.

LIFE SAVING APPARATUS FOR STREET CAR PLATFORMS.

No. 532,339.

Patented Jan. 8, 1895.



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LIFE-SAVING APPARATUS FOR STREET-CAR PLATFORMS.

SPECIFICATION forming part of Letters Patent No. 532,339, dated January 8, 1895.

Application filed August 6, 1894. Serial No. 519,595. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. RODGERS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Life-Saving Apparatus for Street-Car Platforms, of which the following is a specification.

My invention relates to a life saving apparatus for street-car platforms in which a cradle provided with supporting arms is attached to the platform of a car, the cradle when in normal position being held slightly above the tracks and being provided with flanged carrying-wheels and a safety roller, the apparatus being so adjusted to the car platform that upon striking an obstacle it will drop down upon the tracks, the flanged-carrying-wheels engaging with the tracks and the safety roller being pushed inward into contact with the peripheries of the carrying-wheels, which thereby impart to the safety roller a revolution in direction opposite to the carrying-wheels and adapted to turn or throw the obstacle upon the cradle.

The objects of my invention are to provide, first, a life saving apparatus more particularly adapted to use upon trolley or cable cars; second, a life saving apparatus for street-car platforms which shall act automatically; third, a life saving apparatus for street-car platforms which when not in use occupies small space; fourth, a life saving apparatus for street-car platforms which shall be simple in construction and cheap in manufacture. I accomplish these objects by the mechanism illustrated in the accompanying drawings in which similar letters are used to designate similar parts throughout.

Figure 1 is a side view of my life saving apparatus for street-car platforms. Fig. 2 is a plan view of my life saving apparatus for street-car platforms. Fig. 3 is a detail view of the safety-roller showing it in contact with the peripheries of the carrying-wheels and the direction of its revolution.

My life saving apparatus for street-car platforms is provided with plates, A A, each plate, A, having a slot, B, and being attachable to the side of the car by a bolt, C, the plates, A A, being arranged to slide backward and forward

upon the bolts, C C, being held in a desired position by pressure cams, D D.

Pivoted upon each of the plates, A A, is a ratchet-wheel, E, having a pawl, F. Pivoted upon the same shafts as the ratchet wheels, E E, and acting in unison therewith are supporting arms, G G. At the inner or car ends of each of the supporting arms, G G, a spiral counterbalancing spring, H, is attached, the lower portion of each counterbalancing spring, H, being fastened to the plate, A, and arranged to exert a downward pull upon the supporting arm, G, holding each arm, G, in a lifted position, Fig. 1.

Upon the outer portions of the supporting arms, G G, are carrying-wheels, I I, the carrying-wheels, I I, being fixedly attached to the same shaft and revolving therewith, the shaft being pivoted upon the supporting arms, G G. The carrying-wheels, I I, are flanged to engage with the car tracks. A safety-roller, J, also pivoted upon each of the supporting arms, G G, is placed at the extreme outer ends of the supporting arms, which are provided with slots, K K, to receive the pinions of the safety-roller. The pinions of the safety-roller, J, revolve in sliding chocks, *k' k'*, set in the slots, K K.

Spiral springs, *k k*, exerting an outward pressure, are placed in the slots, K K, one end of each of the springs, *k k*, resting against the sliding chock, *k'*, and the other end against the innermost end of the slot, K. The springs, *k k*, are so adjusted that when in normal position they will hold the safety-roller, J, at the outermost ends of the slots, K K, Fig. 1. When in normal position the safety roller, J, is raised above the tracks just enough not to let an obstacle pass under it, but rather to be received upon the upper surface of the safety-roller. Upon striking an object it is lowered so that it just clears the track.

A net-work cradle, M, is suitably attached to the supporting arms, G G, the cradle, M, and arms, G G, being arranged to turn or fold up at the points L L.

The operation of my life saving apparatus for street-car platforms is as follows: The apparatus being in its normal position, Fig. 1, the carrying-wheels, I I, being raised from the tracks by the tension of the counterbal-

ancingsprings H H, the safety-roller, J, strikes an obstacle the resistance of which overcomes the tension of the counterbalancing springs, H H, and causes the supporting-arms, G G, to drop until the flanges of the carrying-wheels, I I, engage with the tracks. The dropping of the supporting arms, G G, also causes the ratchet wheels, E E, to revolve, the pawls, F F, thereof taking up one or more cogs thus holding the carrying-wheels, I I, firmly down upon the tracks, outline Fig. 1. The resistance of the obstacle at the same time forces the sliding chocks, $k' k'$, of the safety-roller, J, inward along the slots, K K, overcoming the pressure of the springs, $k k$, until the periphery of the safety-roller, J, comes in contact with the peripheries of the carrying-wheels, I I. As the safety-roller, J, does not touch the track the carrying-wheels, I I, by reason of their revolution from right to left thereby impart to the safety-roller, J, a revolution from left to right, adapted to turn or throw the obstacle up on the cradle, M, out of danger, Figs. 1 and 3.

For convenience when not in use the cradle, M, may be turned upward out of the way by means of the joints L L, in the supporting arms, G G, the pressure of the cams, D D, upon the bolts, C C, being relieved and the plates, A A, by means of the slots, B B, being pushed inward.

Having fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. A life saving apparatus for street-car platforms composed of plates adjustably attached to the sides of a car, ratch-wheels, having pawls, pivoted upon said plates, supporting arms pivoted upon the same axles as said ratchet wheels, counterbalancing springs attached to said plates and to said supporting arms, carrying-wheels pivoted upon the supporting arms and arranged to be brought in contact with the peripheries of the carrying-wheels, and a cradle attached to said supporting arms, all substantially as herein described and set forth.

2. The combination of the plates attachable to the sides of a car, the ratchet wheels, having the pawls, pivoted upon said plates, the supporting arms pivoted upon the same axles as said ratchet wheels and having at their outer ends the slots, the counterbalancing springs attached to said plates and to the inner ends of said supporting arms, the flanged carrying-wheels pivoted upon said supporting arms, the safety-roller pivoted in said slots upon the outer ends of the supporting arms and arranged to be brought in contact

with the peripheries of the flanged carrying-wheels, and the cradle attached to the supporting arms, all substantially as herein described and set forth.

3. The combination of the plates having the slots and attachable to the sides of a car by the bolts and pressure cams, the ratchet wheels pivoted upon said plates and having the pawls, the supporting arms pivoted upon the same axles as said ratchet wheels and having at their outer ends the slots, the counterbalancing springs attached to said plates and to the inner ends of said supporting arms, the flanged carrying-wheels pivoted upon the supporting arms, the safety-roller revolving upon chocks arranged to slide in the slots in the outer ends of the supporting arms, the springs in said slots in the supporting arms to restrain said sliding chocks in their action, and the cradle attached to the supporting arms, all substantially as herein described and set forth.

4. The combination of the plates having the slots and attachable to the sides of a car by the bolts and pressure cams, the ratchet wheels pivoted upon said plates and having the pawls, the jointed supporting arms pivoted upon the same axles as said ratch-wheels and having at their outer ends the slots, the counterbalancing springs attached to said plates and to the inner ends of said supporting arms, the flanged carrying-wheels pivoted upon the supporting arms, the safety-roller revolving upon chocks arranged to slide in the slots in the outer ends of the supporting arms, the springs in said slots in the supporting arms to restrain said sliding chocks in their action, and the jointed cradle attached to the supporting arms, all substantially as herein described and set forth.

5. The combination, with the plates, the ratchet wheels and pawls, the supporting arms, the counterbalancing springs, and the cradle substantially as described, of the flanged carrying-wheels pivoted upon the supporting arms and the safety-roller also pivoted upon said supporting arms, said safety-roller being arranged to be brought in contact with the peripheries of the carrying-wheels so as to impart to the safety-roller a revolution in direction opposite from the revolution of the carrying-wheels, all substantially as herein described and as and for the purposes set forth.

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Witnesses:

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