(No Model.)

# T. C. KENNEDY & T. MAXON.

## SAFETY GUARD FOR STREET CARS.

No. 564,521. Patented July 21, 1896.

Fig. 5.

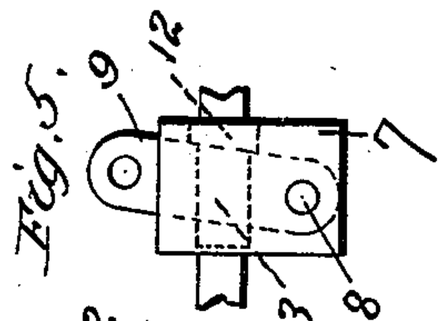



Fig. 4.

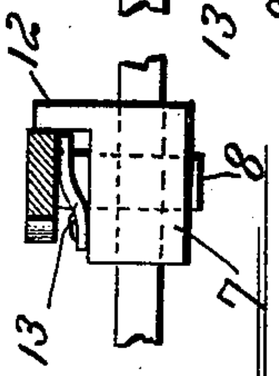



Fig. 2.

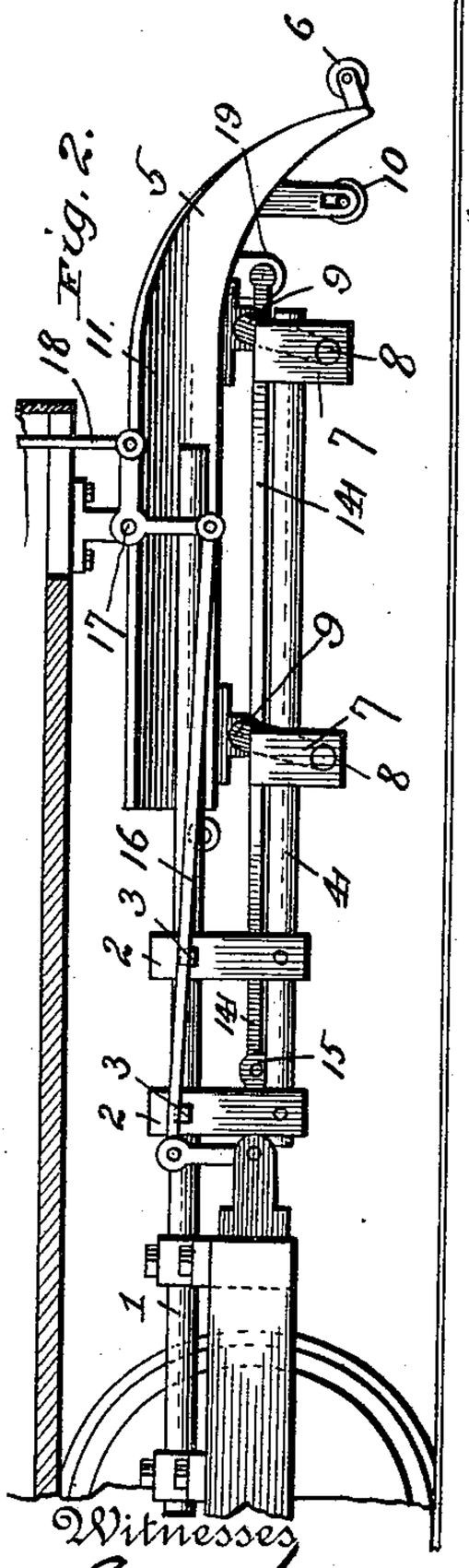



Fig. 1.

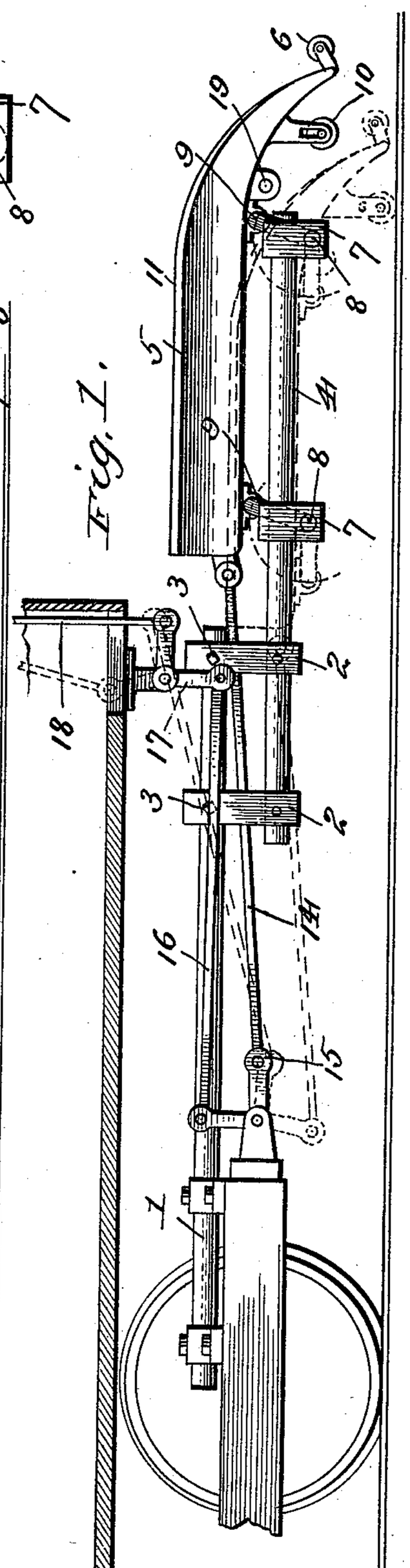
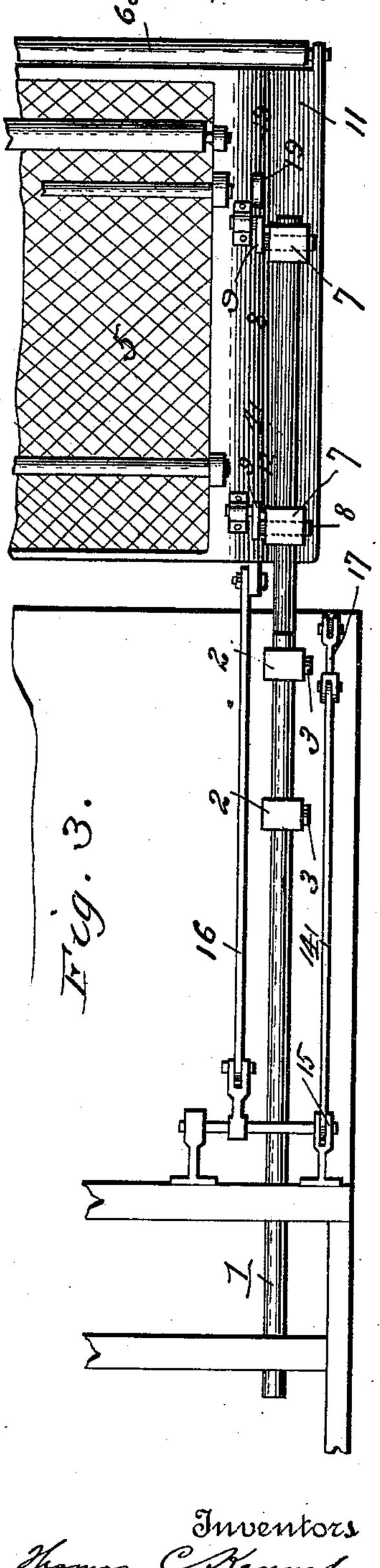



Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## SAFETY-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 564,521, dated July 21, 1896.

Application filed May 9, 1896. Serial No. 590,825. (No model.)

*To all whom it may concern:*

Be it known that we, THOMAS C. KENNEDY and THOMAS MAXON, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Safety-Guards for Street-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention is designed to provide a simple, strong, and efficient life guard or fender for street-cars, which shall automatically operate to pick up without injury anybody that may be on the road-bed in front of the moving car, its especial object being to provide against permitting the body to pass under the pick-up scoop, as more fully described.

In the drawings, Figure 1 is a side elevation of the device with the pick-up scoop projected. Fig. 2 is a side elevation with the pick-up scoop slid back under the car. Fig. 3 is a bottom view of one side of the device, the pick-up scoop being in the position shown in Fig. 1; and Figs. 4 and 5 detail views hereinafter described.

Referring to the drawings by numerals, 1 designates a pair of fixed parallel rods projecting forwardly from the truck under the car-body, one at each side, and terminating near the front end of the car; 2, a pair of hangers depending from each rod and adjustably clamped thereon by set-screws 3, and rigidly carried by each pair of hangers at their lower ends is a forwardly-projecting rod 4, directly under the rod 1; and 5, the safety scoop or basket which is provided with a buffer 6 across its front end and is supported on the projecting ends of the adjustable rods 4. Upon each rod 4 are secured two hangers 7, one at its extreme forward end and the other at about its middle, and pivotally journaled in the lower end of each of these hangers is the lower horizontal pivot 8 of a supporting-link 9, pivotally depending from the scoop, these links being on the inside of the hangers and the pivots 8 extending outward. These links normally support the scoop above the rods and hangers, and the front portion of the scoop curves down toward the tracks in front of the supporting-rods 4, and under the curved part is mounted a roller 10, which is adapted to run on the tracks when the scoop drops down. The scoop carries the usual netting, and is narrow enough to drop down between its supporting-bars, as shown in Fig. 1 in dotted lines, but projecting from each upper side edge is a broad flange 11, which curves upward and outward over the supporting-rods and hangers and serves to prevent the object struck from striking those parts. The supporting-links 9 incline slightly forward and rest against stop-lugs 12, projecting inward from the upper ends of hangers, so that the scoop normally tends to fall forward, and to prevent the scoop being prematurely jarred down backward a friction-spring 13 is secured to the inner side of each hanger and is adapted to bear against the adjacent face of the link. As thus supported, the scoops when struck by a body in front will instantly swing backward and downward to the road-bed, as shown in dotted lines in Fig. 1. This peculiar manner of supporting the scoop is very essential, as the scoop is thereby not only held above the road-bed the desired distance, ready for automatic action at all times, but is also adapted to swing backward under the falling body and thereby prevent it passing under the scoop.

To permit the scoop to be thrown down by the car attendant, any suitable device may be employed. For instance, a rod 14 may be pivotally connected to the rear end of the scoop and extended backward and connected to one arm, 15, of an angle-lever pivoted on the truck, and the other arm of this angle-lever may be connected by a rod 16 to the downwardly-projecting arm of another angle-lever, 17, pivoted on the under side of the car-body near its front end, the other arm of this angle-lever being connected to the rod or rope 18, that will be extended to within convenient reach of the car attendant. With these devices the car attendant may by pulling on the rope or rod 18 draw the scoop backward far enough to permit the action of gravity to quickly bring it to the road-bed. It is evident that in lieu of these angle-levers and rods any other suitable arrangement of devices may be employed.

When the scoop is slid back under the car, the rod 14 is disconnected from the rear end

of the scoop and connected to an ear 19 on the bottom of the scoop near its front end. This arrangement serves to lock the scoop in place under the car until it is desired to slide it forward and ready for operation.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with a car, a frame attached thereto and projecting therefrom, a scoop, and a series of vertical links pivotally supporting the scoop on the frame, the upper ends of the links being pivoted to the scoop and their lower ends to the frame whereby the scoop will swing backward and downward to the road-bed when tripped, substantially as described and for the purpose set forth.

2. The combination with a car, a frame projecting therefrom, a scoop, a series of vertical links pivotally supporting the scoop on the frame, a stop or stops restricting the forward swing of the links, and a spring or springs normally holding the links and scoop against jarring action, whereby the scoop will normally swing backward and downward to the road-bed when tripped, substantially as described and for the purpose set forth.

3. The combination of a car, a frame projecting therefrom in front and consisting of two parallel bars, a series of vertical links pivotally supported on said bars, a scoop pivotally supported on the upper ends of said links, above said frame-bars, and adapted to drop down between the bars to the road-bed, each side of the scoop being provided with an outwardly-curved flange extending over said rods, substantially as described and for the purpose set forth.

4. The combination of a car-truck, a pair of parallel bars projecting forwardly therefrom, a pair of adjustable, sliding hangers on each of these bars, a rod carried by each pair of hangers and projecting forwardly, and a scoop carried on the forward ends of said rods, said scoop being pivotally supported above said rods and being adapted to drop between the same to the road-bed and being provided with a supporting-roller and a front buffer, as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

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