

907,585.

H. FITCH.
CAR FENDER.
APPLICATION FILED MAR. 20, 1908.

Patented Dec. 22, 1908.
2 SHEETS—SHEET 1.

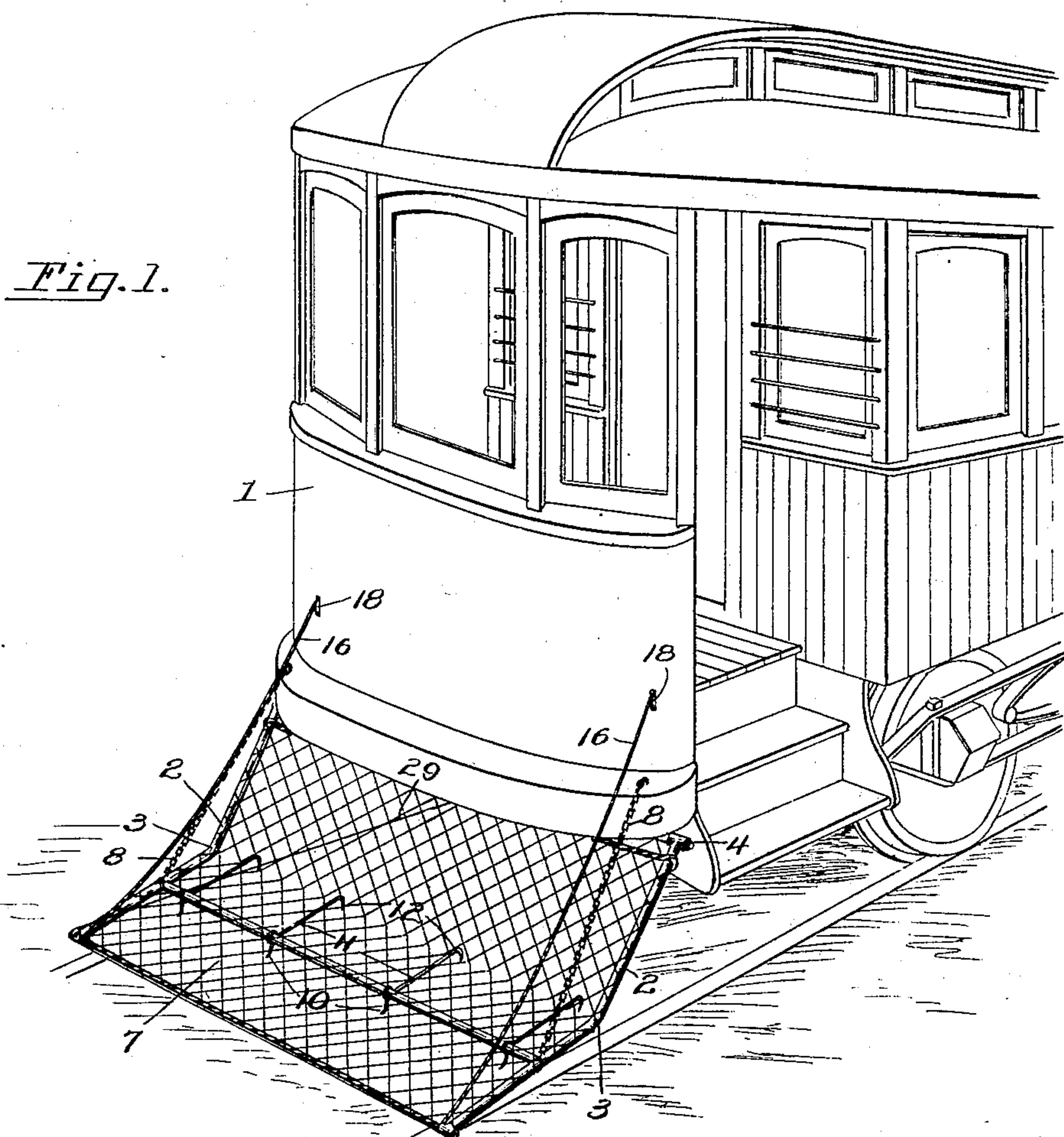
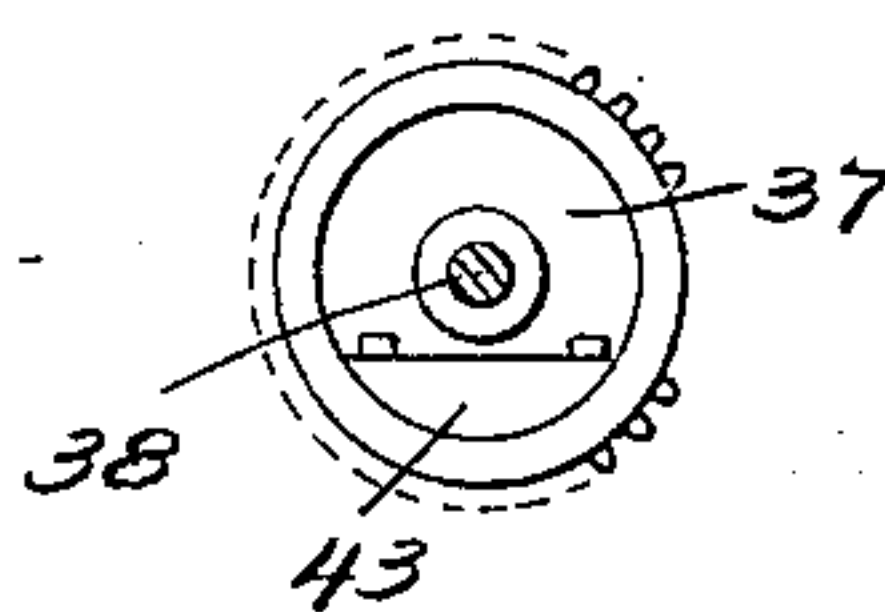
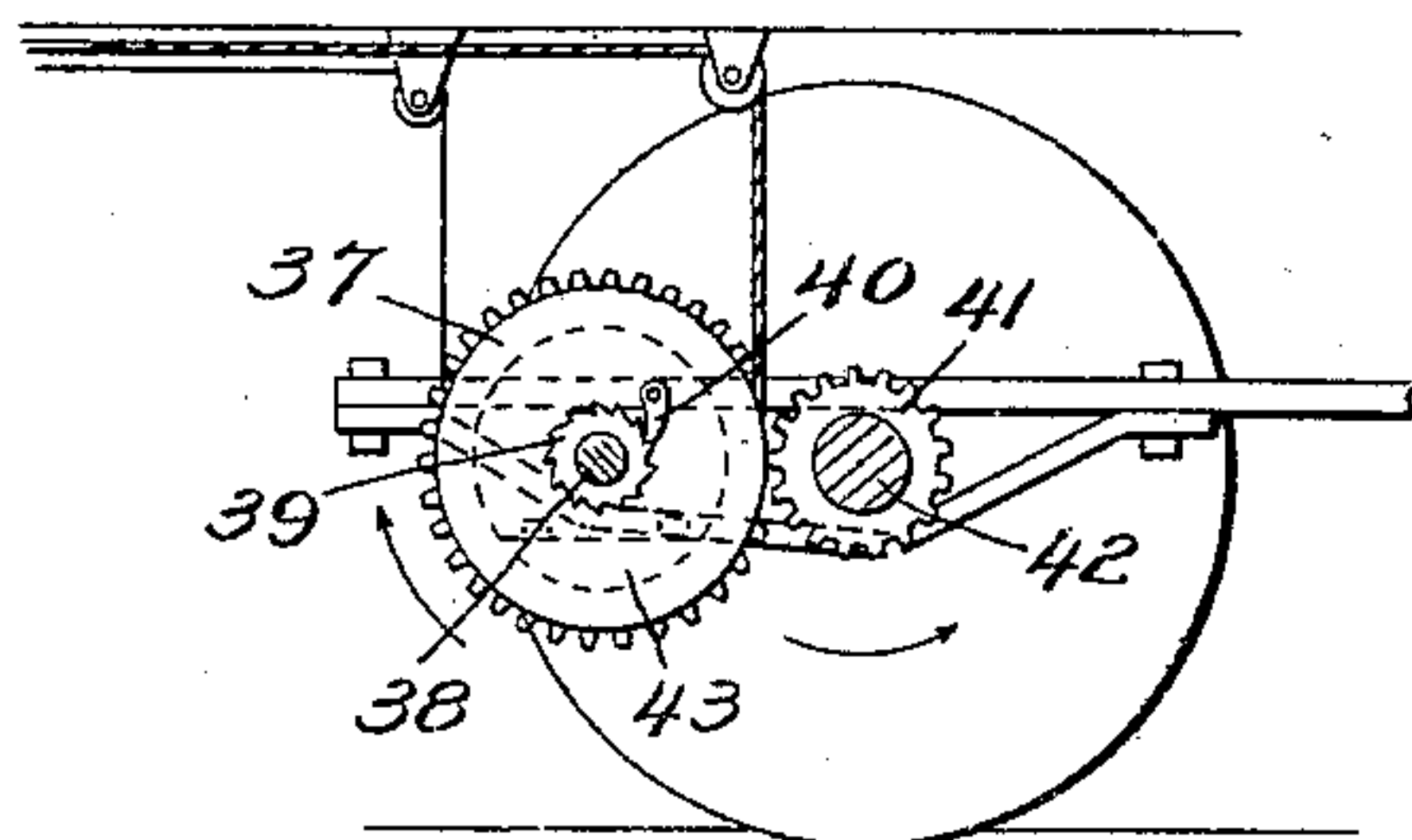


Fig. 4.

Fig. 5.



Inventor
Howard Fitch.

Witnesses
F. L. Gibson.

[Signature]

By Victor J. Evans

Attorney

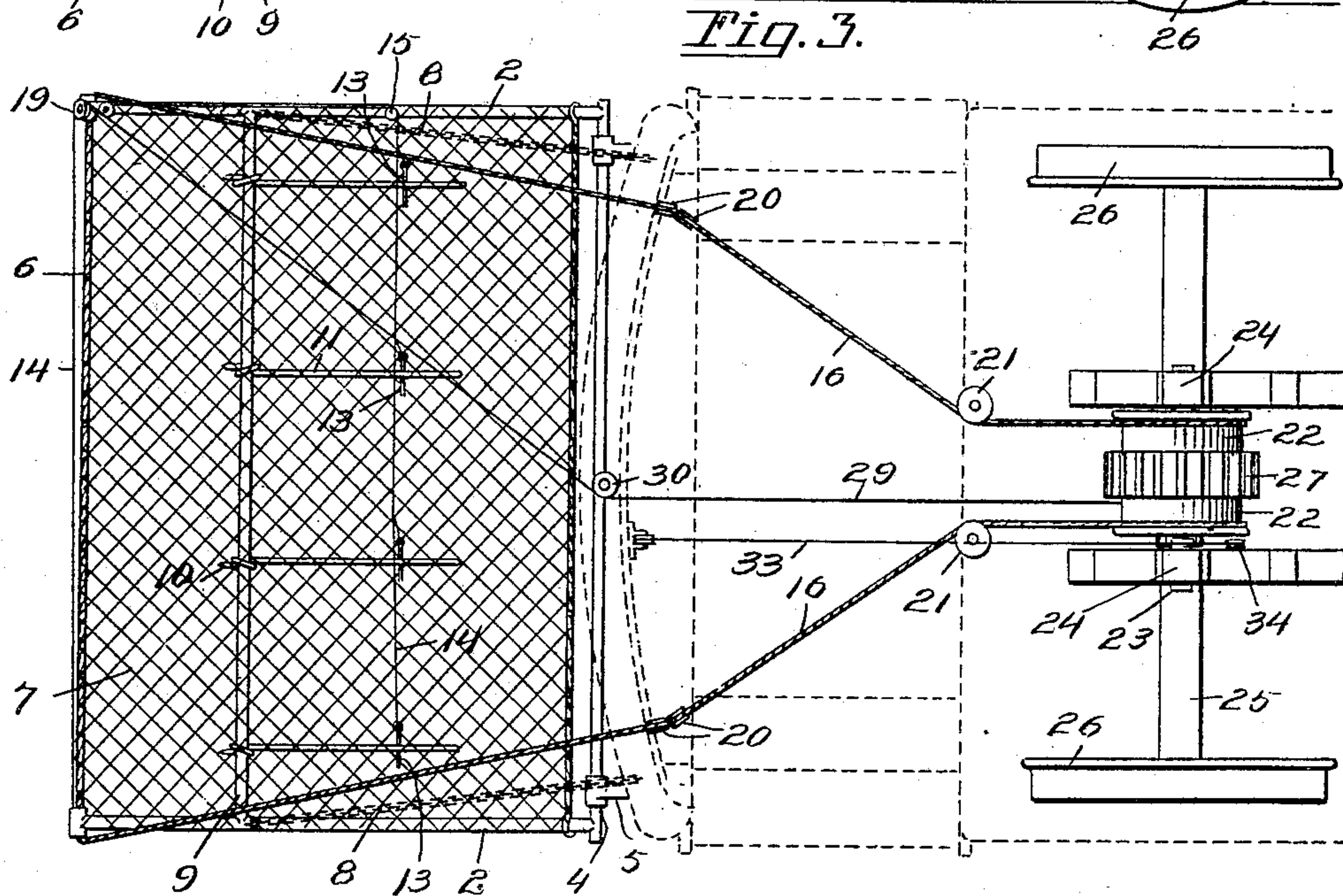
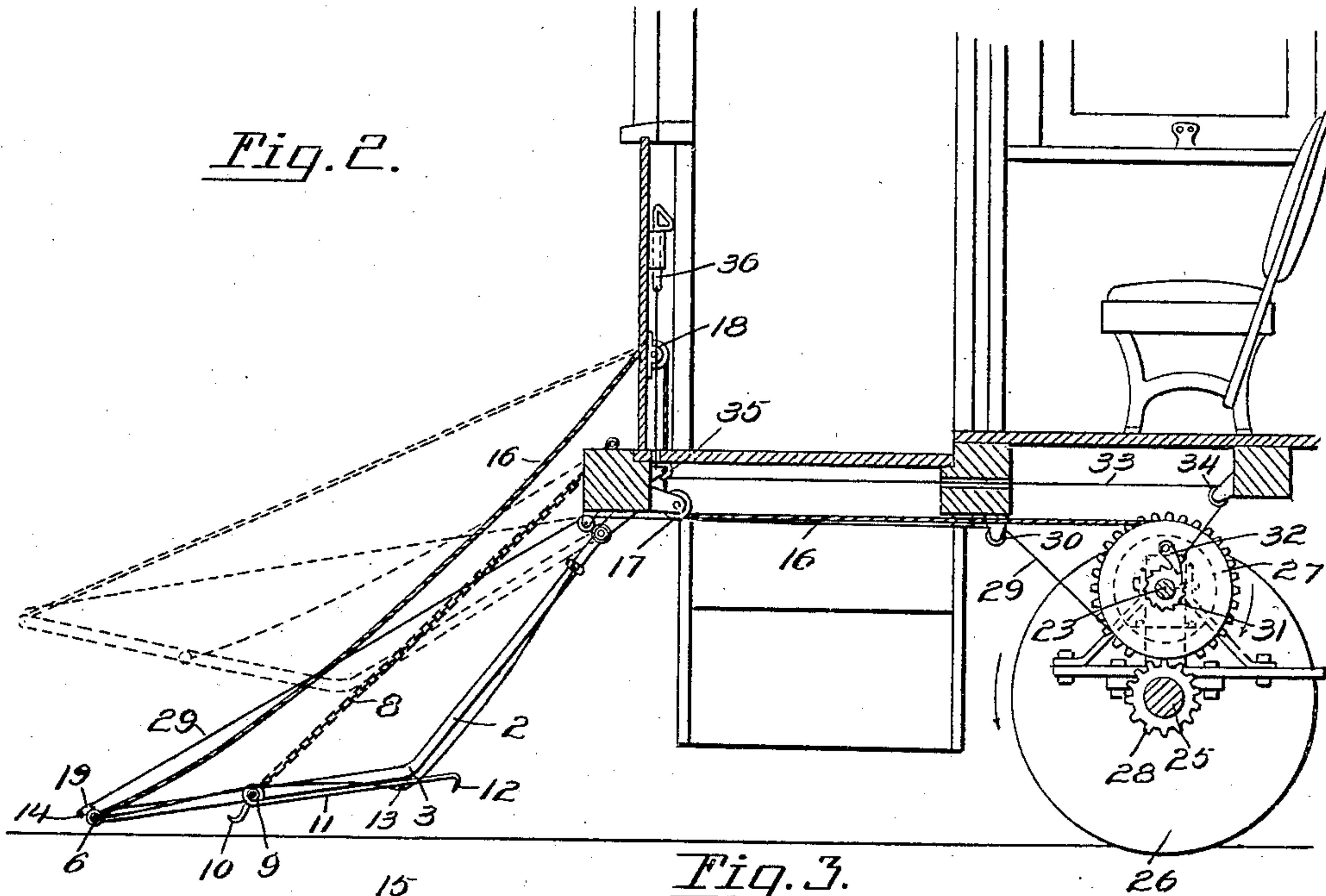
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Attorney

UNITED STATES PATENT OFFICE.

HOWARD FITCH, OF OAKLAND, CALIFORNIA.

CAR-FENDER.

No. 907,585.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed March 20, 1908. Serial No. 422,291.

To all whom it may concern:

Be it known that I, HOWARD FITCH, a citizen of the United States of America, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Car-Fenders, of which the following is a specification.

This invention relates to car fenders, and one of the principal objects of the same is to provide a fender which will automatically rise to carry a person caught by the fender upward above the ground.

Another object of the invention is to provide a fender with a series of hooks underneath the same so that in case a person is caught under the fender the hooks will engage his clothing and prevent him from being run over by the wheels.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which,—

Figure 1 is a perspective view of the front end of a car having a fender attached thereto and made in accordance with my invention.

Fig. 2 is a longitudinal section of the same.

Fig. 3 is a plan view of the fender and its operating mechanism, the car being shown in dotted lines. Fig. 4 is a detail sectional view showing a modified form of mechanism

for automatically raising the fender. Fig. 5 is a plan view of a mutilated gear.

Referring to the drawings for a more specific description of my invention, the numeral 1 designates an ordinary street car, and connected to the front of the street car is my fender.

My fender comprises a frame made up of side bars 2 bent downwardly in the middle, as at 3, and connected at their upper ends by a cross bar 4 which is attached by brackets 5 to the front part of the car 1. The outer ends of the side bars 2 are connected by a front bar 6. The frame is covered with a suitable wire cloth or other open-work reticulated material 7. The upper cross bar 4 is pivoted in the brackets 5, and the fender is supported at the proper distance from the ground by means of the chains 8 secured at their lower ends to the fender and at their upper ends to the car, one upon each side thereof. Connected to a cross bar 9 is a series of hooks 10 which are bent upwardly in position to engage the clothing of a person who by some accident should get under the fender. Extending from the hook 10 is a bar 11 provided with a downwardly extend-

ing hook 12 at its end. The bars 11 are supported in an upper position by means of keepers 13 pivoted to the wire netting. Connected to each of said keepers is a wire or cord 14 passing over a pulley 15 on the side of the frame and extending thence down to the front of the frame and across the same in position to be drawn upon to withdraw the keepers 13 to let the hooks 12 down in case of accident.

A rope or cord 16 extends around a pulley 17 and over a pulley 18 on the front of the car, said rope or cable extending down to the front of the fender and passing over pulleys 19 and back from the opposite end of the fender over the pulley 18 and around the pulleys 20 back around the pulleys 21, and from thence the ends of said rope or cable are wound around a drum 22 formed upon a shaft 23 journaled underneath the car floor upon brackets 24 supported upon the axle 25 of the front car wheels 26. Arranged centrally upon the drum 22 is a mutilated gear 27, and upon the axle 25 is a pinion 28 which is adapted to engage the teeth of the mutilated gear 27 when said gear is moved to a position to bring the teeth in mesh. A wire or cable 29 extends around suitable pulleys 30 and down to the front of the fender. This wire or cable is attached underneath the drum 22. A ratchet wheel 31 on the shaft 23 is provided with a pawl 32, and connected with this pawl is a wire 33 extending around the pulleys 34 and 35 up to an operating device 36 within reach of the driver or motorman.

The operation of my invention as thus far described may be referred to as follows: Should a person be thrown upon a fender the wire 14 and the wire 29 would become taut, and the draft upon these wires would withdraw the keepers 13 and let down the hooks 12. Also the wire 29 will be drawn upon to partially rotate the drum 22 until the teeth of the pinion 28 will engage those of the mutilated gear 27 and rotate the drum by the movement of the car until the fender is raised to the dotted line position shown in Fig. 2, thus raising the person who is caught by the fender up off the ground. When it is desired to release the pawl 32 from the ratchet wheel 31, the engineer grasps the releasing device 36 and pulls upward upon the same.

As a modification of the operating mechanism in Fig. 4 is shown a mutilated gear 37 mounted upon the drum shaft 38 and pro-

vided with a ratchet wheel 39 and a pawl 40. The mutilated gear 37 is adapted to be engaged by the pinions 41 mounted upon the axle 42 on the front car wheels. The mutilated gear 37 is provided with a weight 43 which has a tendency to carry the mutilated gear back to its original position after each operation.

From the foregoing it will be obvious that a fender made in accordance with my invention will operate efficiently for its purpose, is automatic in its action and is comparatively simple in construction.

Having thus described the invention, what is claimed as new, is:—

1. A car fender pivoted to the car, cables connected to the fender, a drum around which said cables are passed, a mutilated

gear upon the drum, a pinion upon the front car axle, and means whereby when a person is thrown upon the fender the mutilated gear is thrown into mesh with the pinion to rotate the drum and elevate the fender.

2. A fender for cars provided with a series of hooks pivoted underneath the fender and adapted to engage the clothing of a person thrown under the same, keepers for supporting said hooks, said keepers being pivoted underneath the fender, and means for releasing said keepers from said hooks.

In testimony whereof I affix my signature in presence of two witnesses.

HOWARD FITCH.

Witnesses:

JAY COUEY,

M. L. RAWSON.