

No. 824,519.

PATENTED JUNE 26, 1906.

M. WICK.
CAR FENDER.

APPLICATION FILED AUG. 5, 1905.

3 SHEETS—SHEET 2.

FIG. 3.

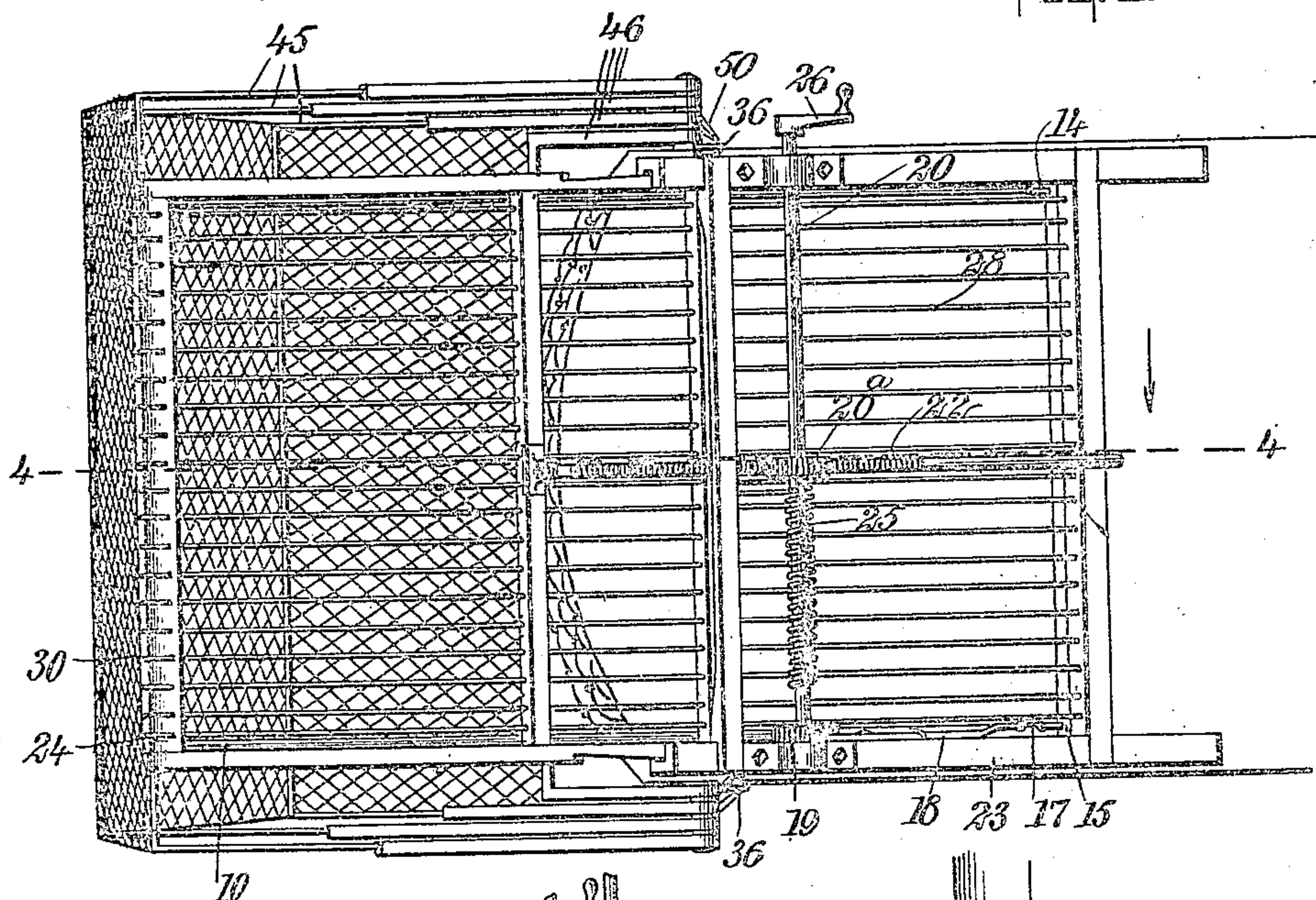
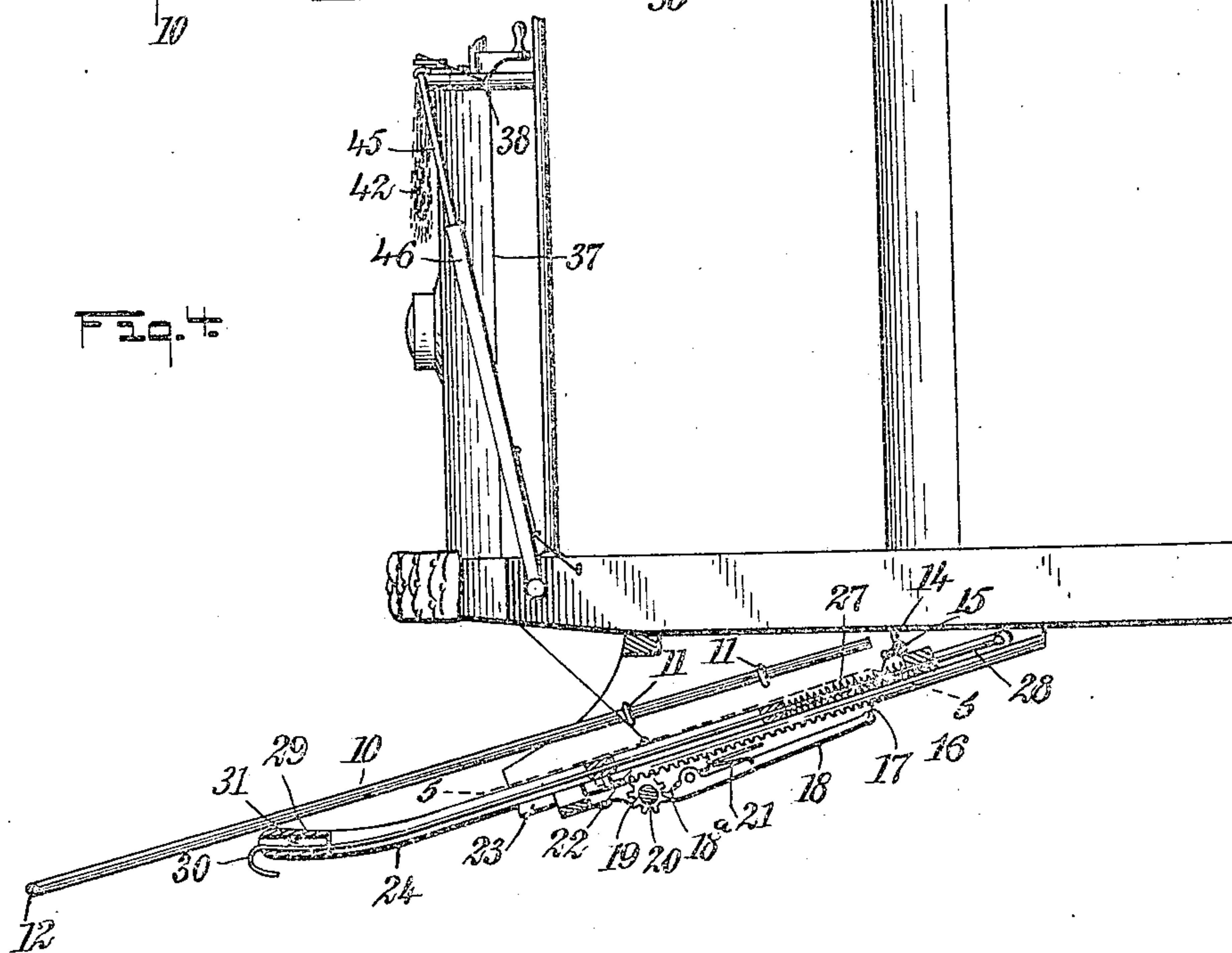


FIG. 4.



WITNESSES:

John J. ...
C. E. Fay.

INVENTOR

Mathias Wick

BY *Munn & Co.*

ATTORNEYS

No. 824,519.

PATENTED JUNE 26, 1906.

M. WICK.
CAR FENDER.
APPLICATION FILED AUG. 6, 1906.

3 SHEETS—SHEET 3.

FIG. 5.

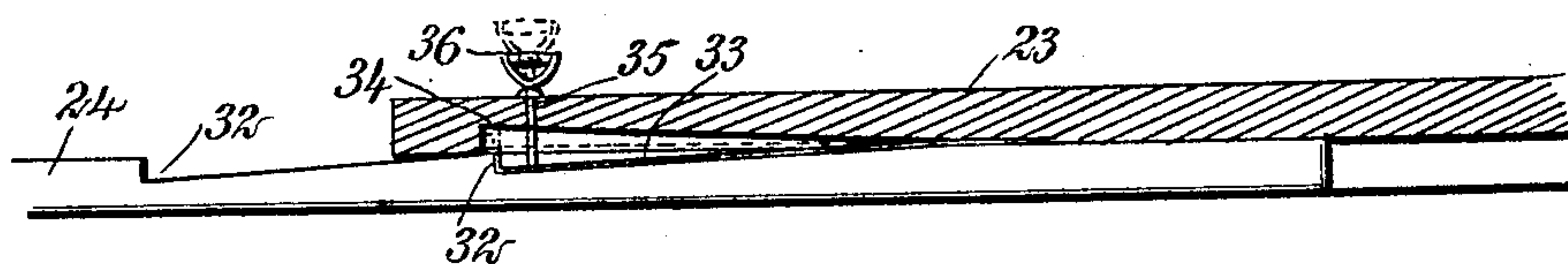


FIG. 6.

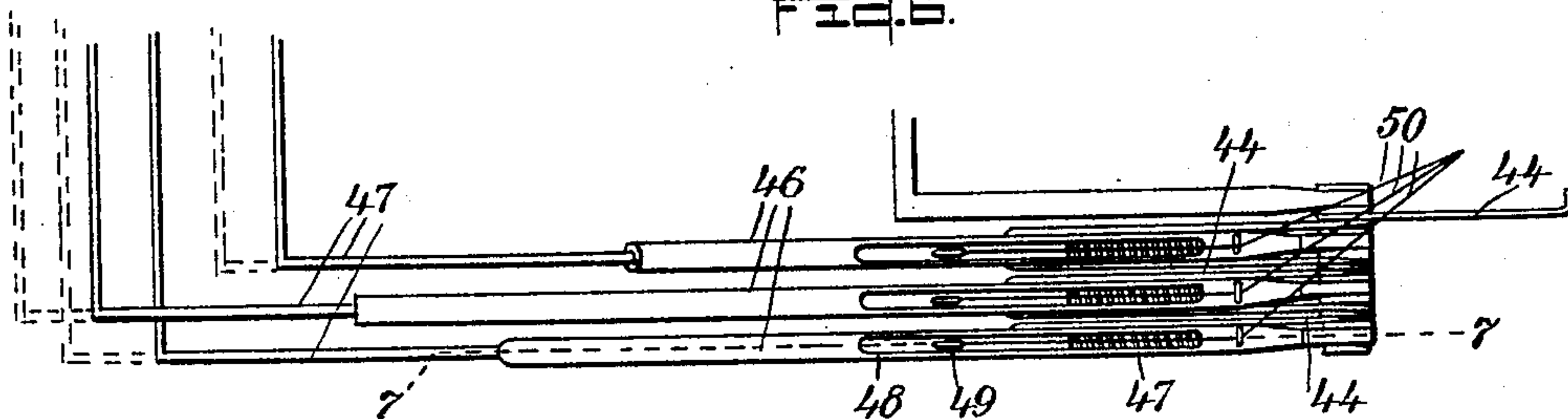


FIG. 7.

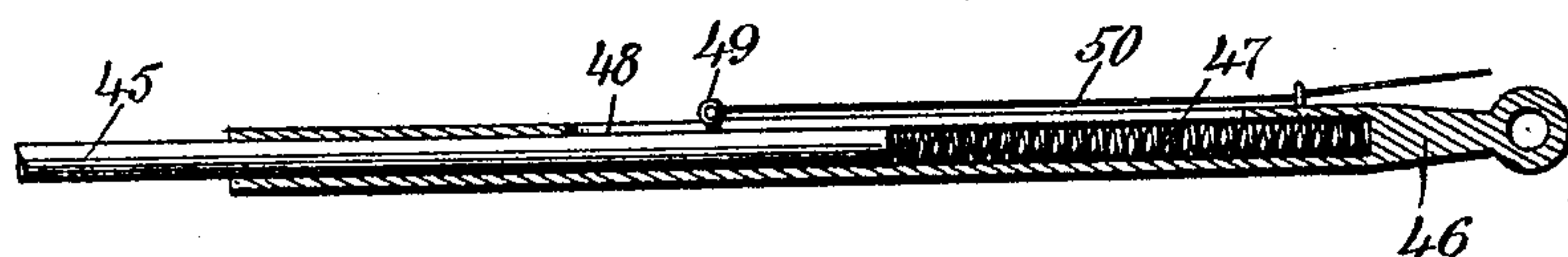
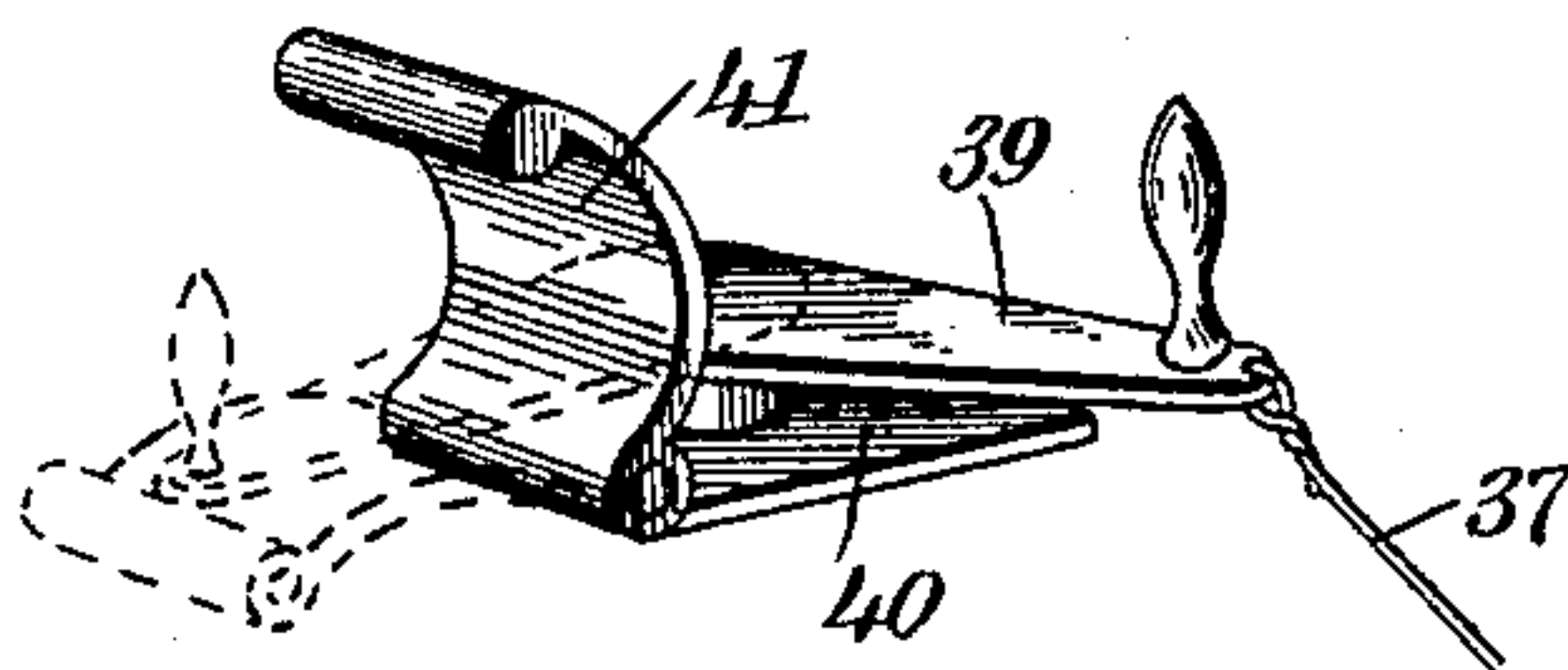


FIG. 8.



WITNESSES:

W. B. M. M. M.
W. B. M. M. M.

INVENTOR

Mathias Wick

BY

Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

MATHIAS WICK, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO EUGENE KIENLE, OF NEW YORK, N. Y., AND ONE-THIRD TO JULIUS A. ZIBELL, OF TAPPAN, NEW YORK.

CAR-FENDER.

No. 824,519.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 5, 1905. Serial No. 272,850.

To all whom it may concern:

Be it known that I, MATHIAS WICK, a subject of the King of Hungary, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

The principal objects of the invention are to provide means for automatically releasing a series of movable elements when a portion of the fender comes in contact with an obstacle so as to lift the obstacle upon a platform and hold it thereon without stopping the car or running any danger of throwing the obstacle under the wheels, provided it is approximately the size of a human body.

Further objects of the invention will appear below, and the objects mentioned will be further explained.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the front of a car, showing one form of my improved fender attached thereto and in extended position. Fig. 2 is a front elevation of the same. Fig. 3 is a bottom plan view of the fender. Fig. 4 is a side elevation of the car, showing a portion of the fender in section on the line 4 4 of Fig. 3. Fig. 5 is a sectional view, on an enlarged scale, on the line 5 5 of Fig. 4. Fig. 6 is a fragmentary view of certain details of the fender. Fig. 7 is a sectional view on the line 7 7 of Fig. 6, and Fig. 8 is a perspective view of a detail.

At the forward end of the car I mount a movable element 10 in guides 11. This element preferably comprises a frame having two members located on an incline at the sides of the fender and a cross member 12, passing in front of the other elements of the fender. This frame is designed to normally project beyond the fender in such a manner that it will engage any obstacle over which the car is about to pass. Its rear end is adapted to engage an arm 14 on a pivoted rod 15. This rod is provided with a second arm 16, with which is connected a wire, chain, or cable 17, that is in turn connected with a lever 18. This lever has a tooth 18^a, engaging a ratchet-wheel 19, and is normally held in

engagement with the teeth of the ratchet-wheel by a spring 21. When, however, the element 10 engages the arm 14, the shaft 15 is rocked and the lever is turned upon its pivot so as to disengage the tooth 18^a from the wheel. This wheel is mounted on a shaft 20, which carries a pinion 20^a, engaging with a rack 22, that is adapted to slide along the frame 23 of the fender. This rack is rigidly connected with a platform 24, which slides with it.

On the shaft 20 is a spring 25, which acts normally to force the rack and platform in an outward direction toward the front of the car. A crank 26 is provided on the shaft 20 for winding up the spring so as to force the platform back under the car. The tooth 18^a holds it in this position until the frame 10 is operated, as has been specified above, and then the spring 25 is free to force the platform out into position for engaging an object in front of the car. I have also shown an additional series of springs 27 for assisting the spring 25 in forcing the platform out into operative position. These springs have a bearing on the frame 23 and also upon the rear end of the platform. They are provided with guide-rods 28, secured to the platform. These guide-rods extend to the front of the platform through a passage 29 therein and project beyond the end at a point 30. This projection may extend directly out from the front of the platform or may be reversely curved, as indicated. A spring 31, located in each opening 29, normally holds these bars down; but this spring will yield in order to allow the device to pass over stones and the like.

The sides of the platform are provided with notches 32 for engagement with a spring 33, which is mounted in a depression 34 in the side of the frame 23. It will be seen that when the platform is forced out in the manner specified above the spring 33 will engage the rear notch 32 and hold the platform rigidly in its outermost position. In order to free the platform from the spring, so that it can be returned to normal position or set, I provide a pin 35, secured to the spring and passing through the side of the frame. This pin may conveniently be provided with a handle 36, by means of which it can be manipulated from the outside. I have also illustrated means in the form of a guard for

holding an object on the fender after it is deposited thereon. A flexible connection 37 in the form of a rope, chain, or cable is joined at one end to the platform, although it might
 5 be connected with the frame 10. This connection passes through guides 38 to a point above the main platform of the car, where it connects with a pivoted arm 39. This arm is mounted upon a plate 40, upon which is a
 10 pivoted convex plate 41, acting as a locking device for certain features which will be described. It will be seen that the rearward movement of the platform 24 or frame 10, according to which is connected with the con-
 15 nection 37, will result in swinging the arm 39 away from the position shown in dotted lines in Fig. 8 to the position shown in full lines, which will permit the plate 41 to be forced upwardly, as shown. This locking device is
 20 designed for securing a guard 42 in inoperative position. This guard comprises a series of rods 43, pivoted to the car, and a net or lattice work connected with the rods. The rods are all pivoted upon the same axis, and
 25 springs 44 are provided for normally forcing them into the open position. (Shown in Fig. 1.)

The guard is folded by turning the rods back on the pivot and engaging the plate 41
 30 with the lowermost one, after which the arm 39 is turned over the plate 41. The upper rod 43 is solid; but the others are made in two telescoping parts 45 and 46, the former sliding into the latter. A spring 47 is
 35 mounted in the hollow rod 46 to normally force the rods 45 outwardly. Each rod 46 is provided with a longitudinal slit 48, through which passes an eye 49, mounted upon a rod
 40 45. These eyes are connected by wires or cords 50 with the stationary part of the device. When the guard is unlocked and caused to spring into operative position, the change in position of the rods 46 will result in allowing the rods 45 to move outwardly on
 45 account of the relative locations of the parts until the rods assume a horizontal position; but after they descend below a horizontal position there will be a pull on the wires 50 which will result in drawing the rods 45 in-
 50 wardly. This action brings the parts together to a certain extent.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

55 1. In a car-fender, the combination of a movable platform, a shaft connected with the platform, means for turning the shaft in a direction to move the platform outwardly, a ratchet-wheel on the shaft, a pivoted lever
 60 having a tooth for engaging the ratchet-wheel, an oscillatable shaft connected with said lever, the shaft being provided with a projection, and means for engaging said projection and turning the shaft to disengage the
 65 tooth on the lever from the ratchet-wheel.

2. A car-fender, comprising a movable platform, a rack connected therewith, a pinion meshing with the rack, a shaft on which the pinion is mounted, means connected with the shaft for turning it in a direction to force
 70 the platform outwardly, a ratchet-wheel on the shaft, a lever having a tooth for engaging said ratchet-wheel, a shaft connected with said lever and having a projection, and means for engaging said projection and turn-
 75 ing the shaft to disengage the tooth on the lever from the ratchet-wheel.

3. In a car-fender, the combination of a reciprocable frame, a reciprocable platform, resilient means for forcing the platform out-
 80 wardly and downwardly, a rack connected with the platform, a pinion meshing with the rack, a shaft carrying said pinion, a ratchet-wheel on said shaft, an arm having a tooth for engaging the ratchet-wheel and locking
 85 the shaft and the rack in fixed position, and a second arm having a projection adapted to be engaged by said frame for disengaging the projection and the first arm from said shaft.

4. A car-fender, comprising a movable
 90 platform, springs for forcing the platform into operative position, a rack fixedly secured to said platform, a pinion meshing with said rack, a shaft on which the pinion is mounted, a spring connected with said shaft
 95 for turning it in a direction to force the platform outwardly, a ratchet-wheel on the shaft, a pivoted lever having a tooth for engaging said ratchet-wheel, a spring for normally keeping said tooth in engagement with the
 100 ratchet-wheel, an oscillatable shaft connected with said lever, a projection on said shaft, and means for engaging said projection and turning the shaft to disengage the projection on the lever from the ratchet-wheel.
 105

5. A car-fender, comprising a movable platform having longitudinal rods with downwardly-extending ends, the platform being provided with passages through which the forward ends of said rods extend.
 110

6. A car-fender having a movable platform provided with vertically-movable longitudinal rods with downwardly-curved ends extending through and beyond the forward end thereof, the platform being provided
 115 with passages for the rods, and means for normally keeping the ends of said rods in a position near the bottom of the platform.

7. A car-fender having a movable platform provided with longitudinal rods extend-
 120 ing through and beyond the forward end thereof, and springs for normally keeping the ends of said rods in a position near the bottom of the platform.

8. In a car-fender, the combination of a
 125 frame, a platform movably mounted thereon and having notches, and a spring mounted on the frame and adapted to engage said notches to hold the platform in extended position.

9. In a car-fender, the combination of a
 130

frame, a platform movably mounted thereon, said platform having notches in its sides, a spring mounted on the frame and adapted to engage said notches to hold the platform in extended position, and means extending through the walls of said frame for disengaging the spring from said notches.

10. In a car-fender, the combination of a movable platform having a rack thereon, a pinion for engaging said rack, means for locking the pinion against rotation, a guard, and means connected with said platform for releasing the guard from a stationary position.

11. In a car-fender, the combination of a movable platform, means for holding said platform in inoperative position, means for releasing the platform, a guard movable toward and from the platform, means for holding the guard in inoperative position, and means connected with the platform for releasing the guard when the platform is moved to operative position.

12. In a car-fender, the combination of a movable platform, means for moving it outwardly, means for locking it in retracted position, a guard movable toward and from the platform, means for extending the guard, means for locking the guard in retracted position, and means operable by the movement of the platform for releasing the guard from locked position; said last-named means comprising a pivoted convex plate adapted to engage the guard, an arm pivoted on an axis at an angle to that on which the plate is pivoted, and a flexible connection joining said arm and the platform.

13. A car-fender comprising a guard having a series of movably-mounted frames, means for swinging said frames about an axis, and means for lengthening said frames

as they swing from a vertical to a horizontal position.

14. A car-fender, comprising a guard made up of a series of pivoted frames, means for lengthening said frames as they swing from a vertical to a horizontal position, and means for shortening them when they swing downwardly from a horizontal position.

15. A car-fender comprising a guard consisting of a series of pivoted frames, certain of said frames comprising a pair of bars telescopically connected together, and a spring in the outer telescoping bar for forcing the inner bar in an outward direction.

16. A car-fender comprising a guard consisting of a series of pivoted frames, certain of said frames comprising a pair of bars telescopically connected together, a spring in the outer telescoping bar for forcing the inner bar in an outward direction, and means for connecting the inner bar with the stationary portion of the device for preventing the springs from acting beyond a certain point and for retracting the inner bar when the frames move beyond a certain point.

17. A guard comprising a hollow rod, a spring therein, a rod movably mounted in the hollow rod and engaging said spring, said hollow rod having a slit through which a portion of the other rod projects, and means for connecting the projecting portion of the second rod to a stationary part of the device.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MATHIAS WICK.

Witnesses:

JNO. M. RITTER,
ALBERT E. FAY.