(No Model.) 2 Sheets—Sheet 1.

H. SCHWEERS.

CAR FENDER OR GUARD.

No. 554,462. Patented Feb. 11, 1896.

FIG. 1.

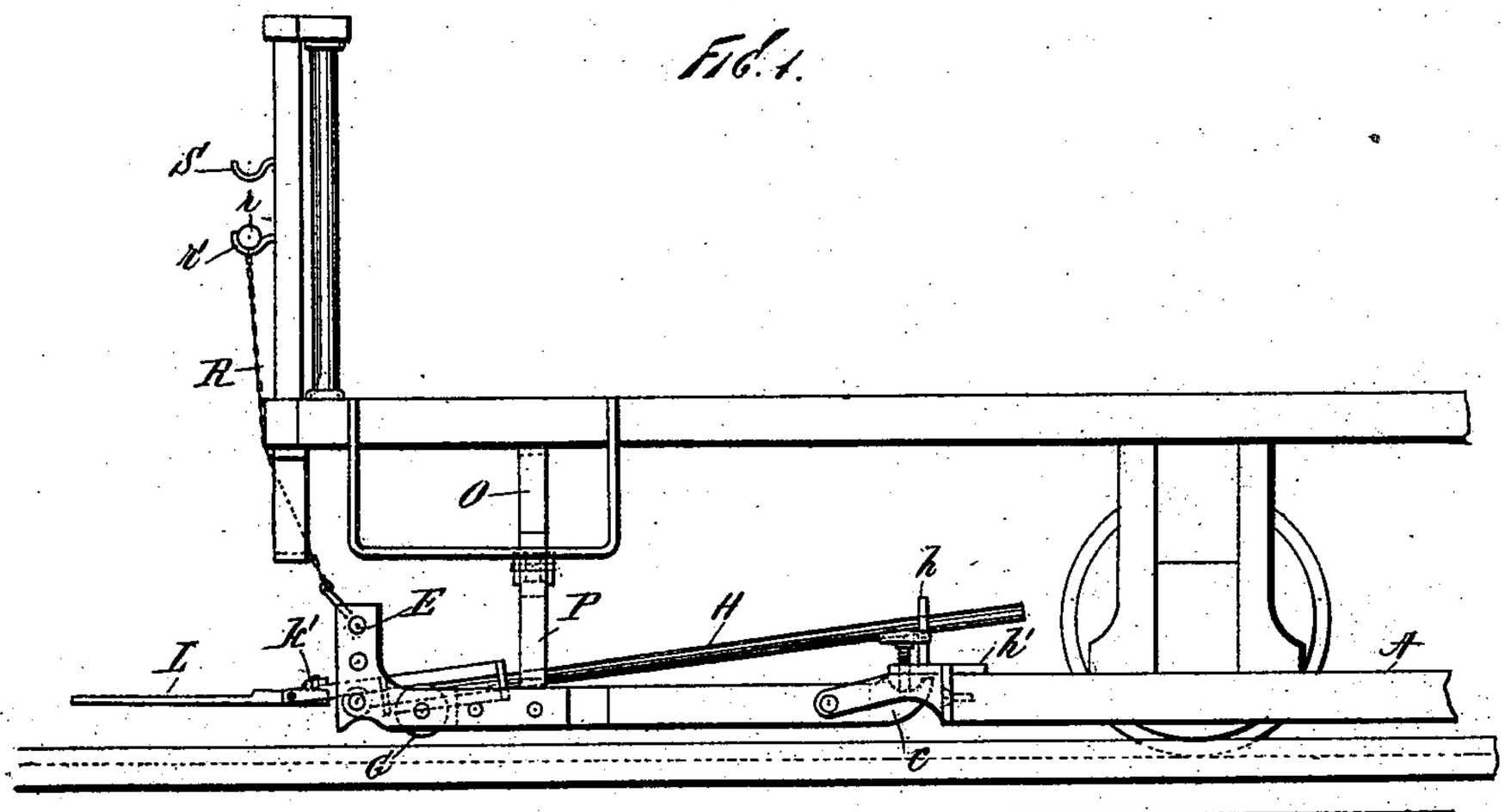


FIG. 2.

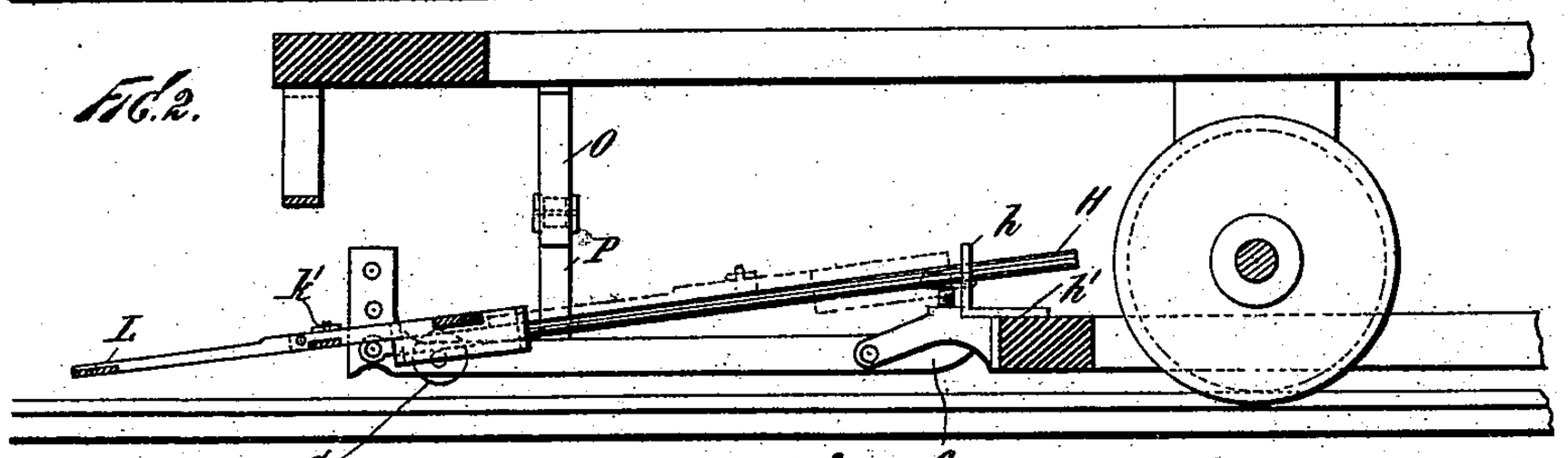
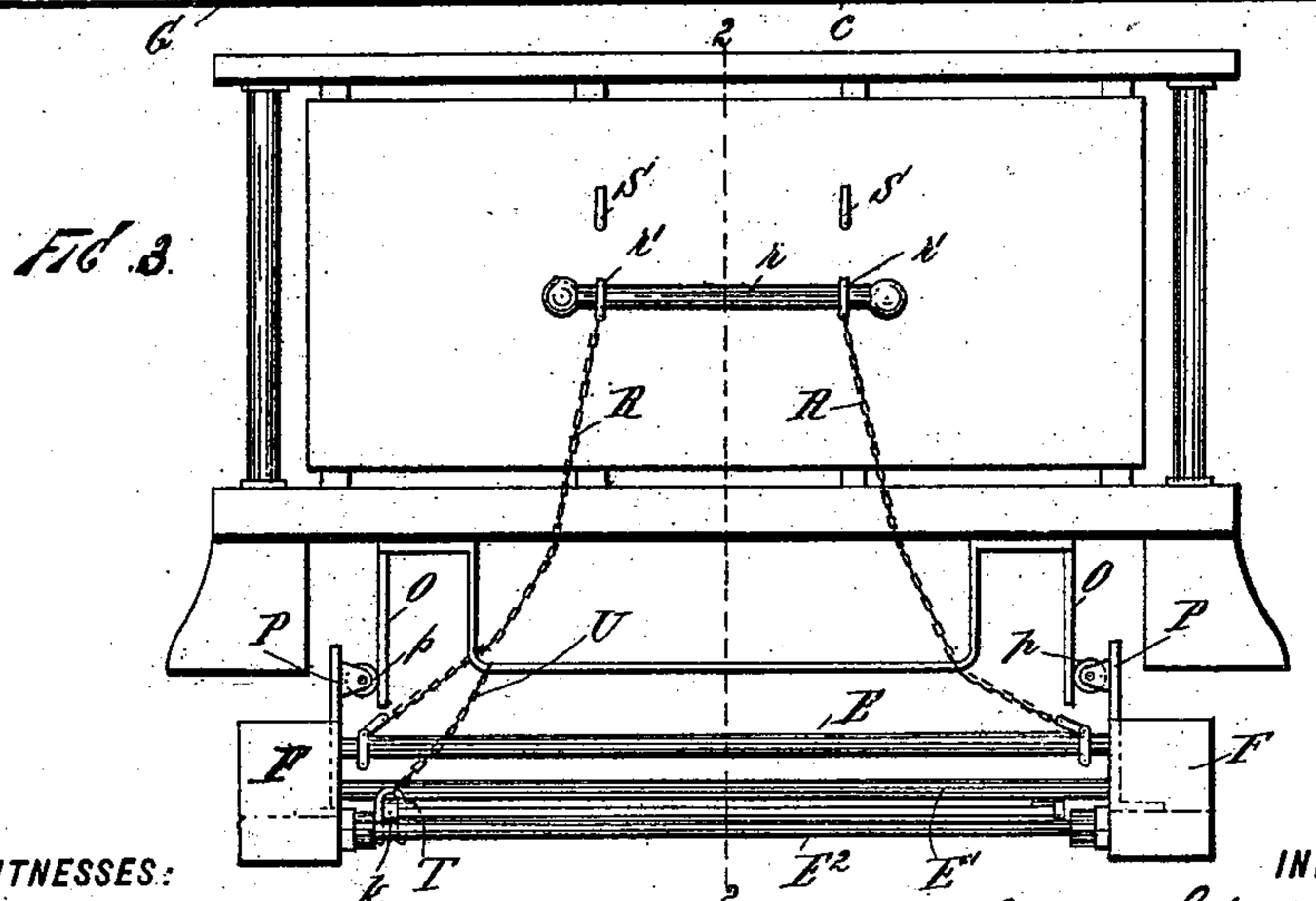


FIG. 3.



WITNESSES:
John Buckler,
L. M. Muller.

INVENTOR
Henry Schweers.
BY
Edgar Tate & Co
ATTORNEYS.

ANDREW B. GRAHAM PHOTO-LITHO. WASHINGTON, D.C.

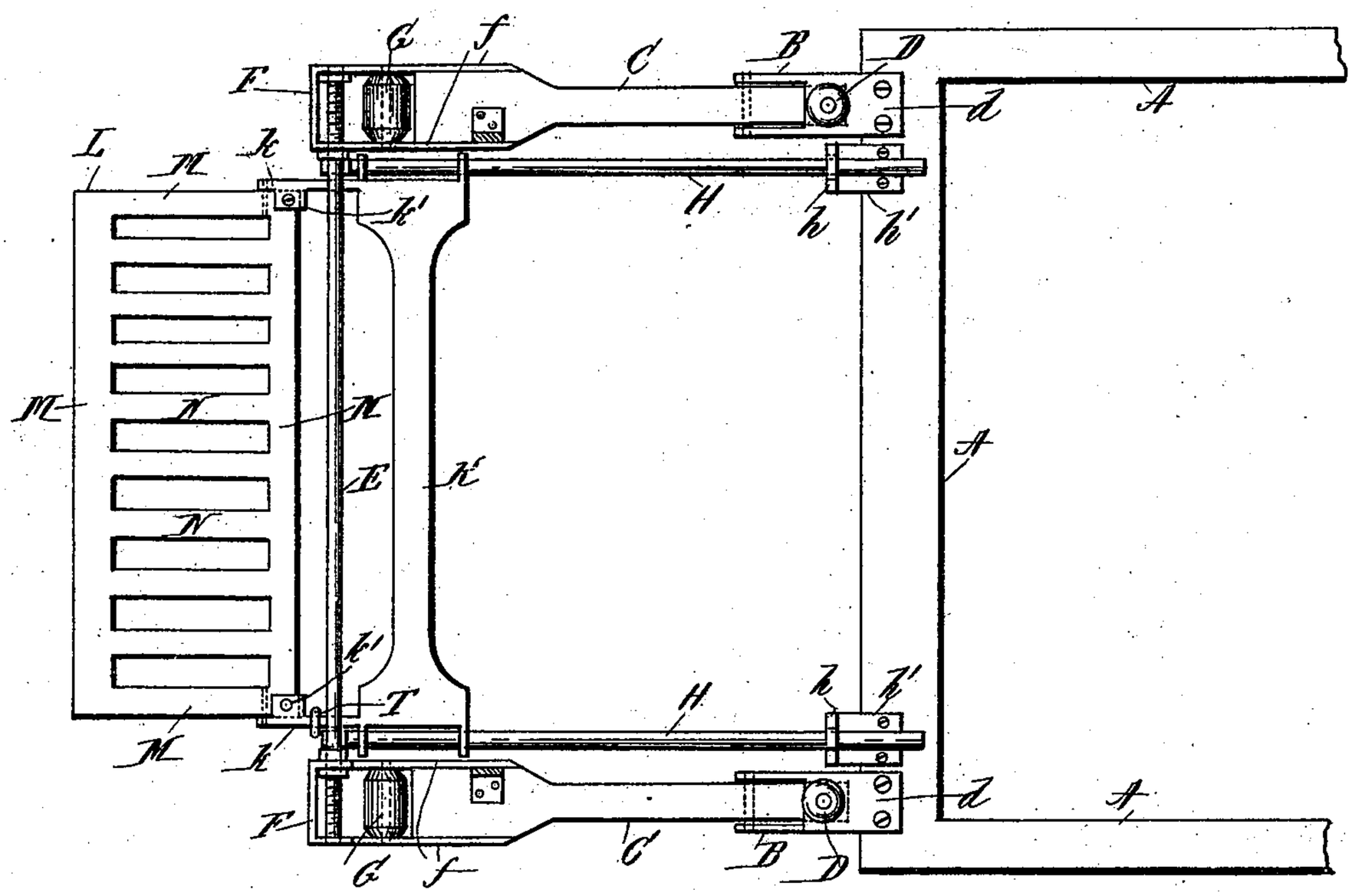
(No Model.) 2 Sheets—Sheet 2.

H. SCHWEERS.

CAR FENDER OR GUARD.

No. 554,462. Patented Feb. 11, 1896.

FIG. 4.



WITNESSES:

John Buckler,
L. M. Muller.

INVENTOR.

Henry Schweers,

BY

Edgar Tate & Co

ATTORNEYS.

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D.C

UNITED STATES PATENT OFFICE.

HENRY SCHWEERS, OF NEW YORK, N. Y.

CAR FENDER OR GUARD.

SPECIFICATION forming part of Letters Patent No. 554,462, dated February 11, 1896.

Application filed July 10, 1895. Serial No. 555,456. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHWEERS, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Car Fenders or Guards, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to fenders or guards for tramway-cars, and the object thereof is to provide a device of this class which is simple in construction and operation, and which comprises two separate frames connected with the end of a car, each of which is pivotally supported, and one of which is adapted to be projected in the front of the car or withdrawn beneath it, and which latter is also adapted to be folded to a vertical position in the front of the car; and with these and other objects in view the invention consists in the construction, combination and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of the end and the platform of a car, showing also one of the trucks and my improved fender or guard connected therewith; Fig. 2, a sectional elevation on a longitudinal line extending centrally through the construction shown in Fig. 1; Fig. 3, a front end view of the construction shown in Fig. 1, and Fig. 4 a plan view of the fender or guard and and also one end of the frame with which it is connected.

In the practice of my invention I provide a frame A, which is rigidly connected with the car-trucks, and which preferably surrounds and incloses each of said trucks, and is preferably situated near or adjacent to the rails of the track.

Secured to the front end of the frame A are yokes B, between which are pivoted the side arms C of the main frame of my improved fender or guard, the rear ends of which extend backward, as shown at *c*, Fig. 1, and are adapted to be operated upon by set-screws D, which pass through plates *d*, and by means of which the forward end of the main fender-frame may be raised or lowered as desired.

The forward ends of the sides C of the main fender-frame are connected by means of rods E, E′ and E², arranged vertically in upwardly-directed angular extensions F, which consist of yokes formed of angle-iron and the sides of which are connected with the forward ends of the side bars C of the main fender-frame, as clearly shown in Figs. 1, 2 and 4.

Between the sides *f* of the yokes F are mounted rollers G, which are adapted to contact with the ground under certain conditions, and thus form a support for the forward end of the main fender-frame, and secured to the lower cross-rod E² are rods H, which extend backward and the ends of which pass through upwardly-directed extensions *h*, formed on plates *h′*, which are secured to the forward end of the frame A, as clearly shown in Figs. 1 and 4.

Mounted on the rods H, so as to slide thereon, is a cross-bar K, each end of which is provided with an arm *k*, and between the outer ends of the arms *k* is pivoted the inner end of the supplemental fender or guard L, which consists of a frame comprised of side and end bars M and cross-bars N.

The supplemental frame L may be folded vertically on its pivotal connection with the arms *k*, and said arms are provided with shoulders or projections *k′*, which are adapted to hold it projected in a horizontal position, as shown in Figs. 1 and 2.

Secured to the platform of the car at each side are vertical bars or plates O, and secured to the side bars C of the main fender or guard-frame are corresponding vertical bars or plates R, on the inner side of each of which is mounted a roller *p*, which is adapted to contact with and bear upon the outer side of the bars or plates O, and thus form a guide for the main fender-frame in the vertical movements thereof.

Connected with the upper transverse rod E of the main fender-frame are chains or cords R, the upper ends of which are secured to a rod *r*, adapted to be supported by hooks *r′*, connected with the dashboard of the car, as shown in Figs. 1 and 2, and by means of this device the front end of the main fender

or guard frame may be supported, and additional hooks S are provided above the hooks r', which may also be used as supports for the rods r.

As thus constructed it will be seen that the supplemental fender-frame L is movable back and forth, and may be pushed back and forth beneath the car, as shown in dotted lines in Fig. 2, or projected in front thereof, as shown in Figs. 1, 2 and 4, and it may be held in the projected position by means of a yoke T, which is connected with the platform of the car or a hanger secured beneath the same by means of a chain U, and the yoke F is adapted to be placed around one of the arms k, as shown in Figs. 3 and 4, in which position it bears upon the transverse rods E' and E^2 and holds the supplemental frame in the projected position.

When constructed and applied in the manner described, it will be seen that my improved fender or guard will absolutely prevent a person or object from passing beneath the car when struck thereby, such person or object being received upon the supplemental fender-frame, and by these means the serious injuries or fatal results that frequently accompany such accidents will be avoided.

It is also evident that my improved fender or guard may be applied to each end of the car, and I thus accomplish the object of my invention by means of a device simple in construction and operation and comparatively inexpensive.

It is evident that changes in and modifications of the construction may be made without departing from the spirit of my invention or sacrificing its advantages, and I therefore reserve the right to make such alterations in the form, construction and combination of the various parts of my invention as fairly come within the scope thereof.

Having fully described my invention, I claim and desire to secure by Letters Patent—

1. The combination with a car, of a frame secured to the trucks thereof, a main fender-frame, the rear end of which is pivotally connected therewith and provided with means for raising and lowering the front end, and a supplemental frame connected with the main frame and adapted to slide back and forth thereon, and to be projected in front of the car, substantially as shown and described.

2. The combination with a car, of a frame connected with the trucks thereof, a main fender-frame, the rear end of which is pivotally connected with said frame, and a supplemental frame connected with the forward end of said main frame and adapted to slide back and forth thereon and to be projected in the front of the car, said main frame being provided with means for raising and lowering the forward end thereof, and with longitudinal bars on which the supplemental frame slides, substantially as shown and described.

3. The combination with a car, of a frame connected with the trucks thereof, a main fender-frame, the rear end of which is pivotally connected with said frame, and a supplemental frame connected with the forward end of said main frame and adapted to slide back and forth thereon and to be projected in the front of the car, said main frame being provided with means for raising and lowering the forward end thereof, and with longitudinal bars on which the supplemental frame slides, the forward end of said main frame being also adapted to come in contact with the ground, when said frame is depressed, substantially as shown and described.

4. The combination with a car, of a frame secured to the trucks thereof, a main fender-frame, the rear end of which is pivotally connected with the end of said frame, and provided with means for raising and lowering the front end thereof, plates or bars connected with the platform of the car at each side, and extending downward, vertical standards at the sides of the main fender-frame, and provided with rollers adapted to contact with said plates or bars and thus guide the main fender-frame in its vertical movement, and a supplemental frame connected with the forward end of the main fender-frame, and adapted to be projected in front thereof, substantially as shown and described.

5. The combination with a car, of a frame secured to the trucks thereof, a main fender-frame, the rear end of which is pivotally connected with the end of said frame, and provided with means for raising and lowering the front end thereof, plates or bars connected with the platform of the car at each side, and extending downward, vertical standards connected with the sides of the main fender-frame, and provided with rollers adapted to contact with said plates or bars and thus guide the main fender-frame in its vertical movement, and a supplemental frame connected with the forward end of the main fender-frame, and adapted to be projected in front thereof, and means for raising and lowering the forward end of the main fender-frame and supporting it in a raised position, substantially as shown and described.

6. The combination with a car, of a frame secured to the trucks thereof, a main fender-frame, the rear end of which is pivotally connected with the end of said frame, and provided with means for raising and lowering the front end thereof, plates or bars connected with the platform of the car at each side, and extending downward, vertical standards connected with the sides of the main fender-frame, and provided with rollers adapted to contact with said plates or bars and thus guide the main fender-frame in its vertical movement and a supplemental frame connected with the forward end of the main fender-frame, and adapted to be projected in front thereof, and means for raising and lowering

the forward end of the main fender-frame and supporting it in a raised position, consisting of chains or cords connected therewith and with a rod, which is adapted to be supported with hooks connected with the dash-board, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 8th day of July, 1895.

HENRY SCHWEERS.

Witnesses:
L. M. MULLER,
A. M. CUSACK.