

(No Model.)

2 Sheets—Sheet 1.

H. B. EWBANK, Jr.
CAR FENDER.

No. 535,688.

Patented Mar. 12, 1895.

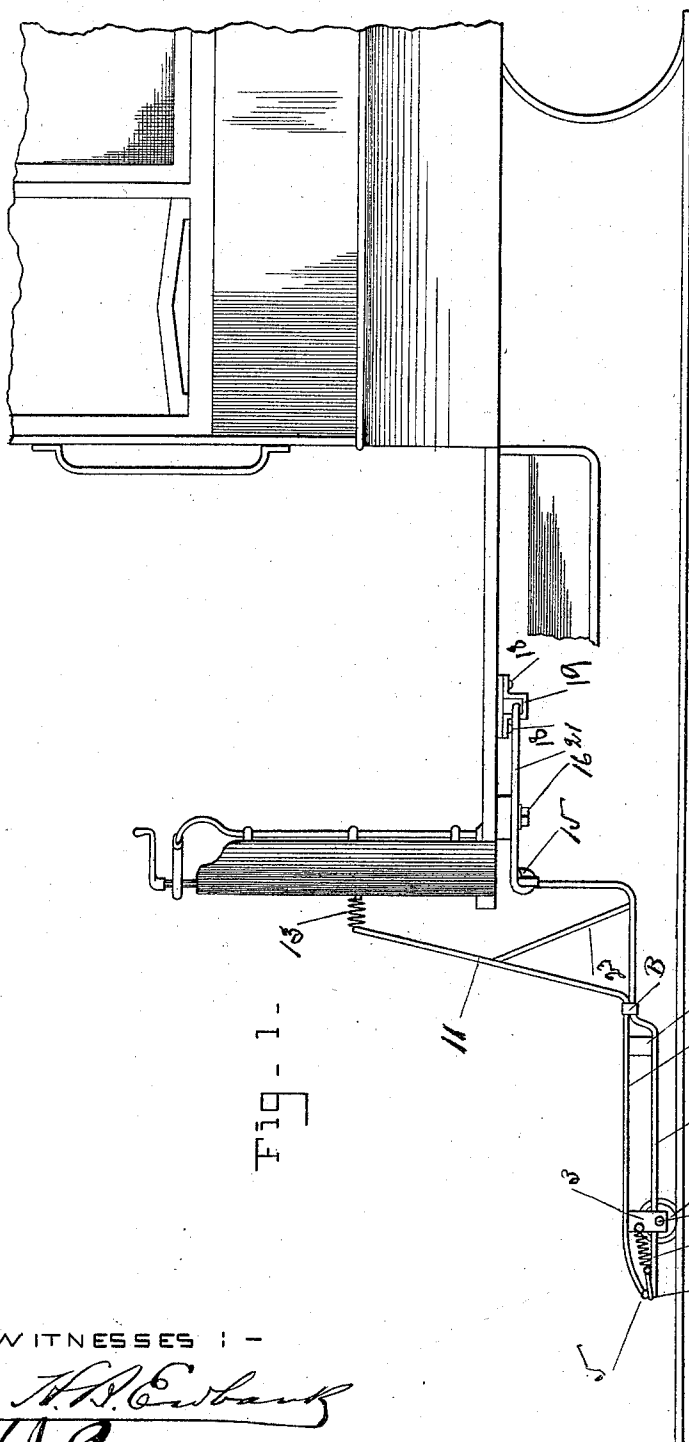


Fig. 1 -

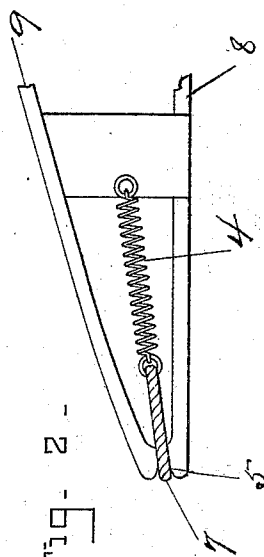


Fig. 2 -

WITNESSES: -

H. B. Ewbank
A. J. Spruings

INVENTOR: -

H. B. Ewbank, Jr.

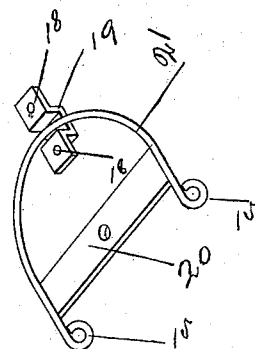
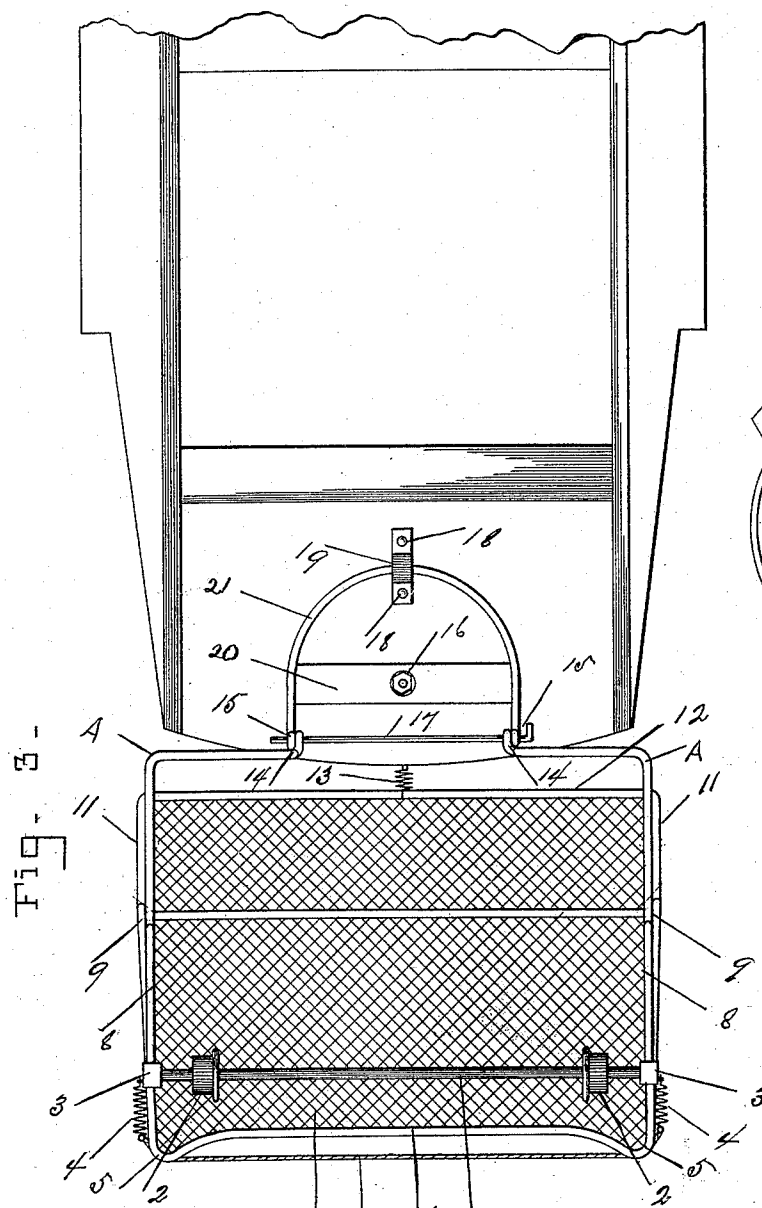
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2 Sheets—Sheet 2.

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CAR FENDER.

No. 535,688.

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WITNESSES: -

INVENTOR: -

H. B. Ewbank
H. J. Furringer

H. B. Ewbank, Jr.

UNITED STATES PATENT OFFICE.

HERBERT B. EWBank, JR., OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO HERBERT BRYAN EWBank, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 535,688, dated March 12, 1895.

Application filed January 4, 1895. Serial No. 533,876. (No model.)

To all whom it may concern:

Be it known that I, HERBERT B. EWBank, Jr., a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Car-Fenders; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in car-fenders having flanged wheels to run on the car track and pivoted to the car in order to allow the said wheels to traverse the track while the car is passing around a curve.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a side view of a street car with my improved fender attached. Fig. 2 is a side view of the front end of the fender on a larger scale. Fig. 3 is a bottom view, or an inverted plan, of a car with the fender attached. Fig. 4 is a perspective view of the improved fifth wheel or swivel frame.

The fender comprises a frame having at each side a lower side bar, 8, which at the rear has a curve, A. The bars 8 at the two sides are curved toward each other and each has at its end a loop or eye for attachment by a pin, 17, to a similar loop or eye on a swiveled frame or fifth wheel. An upper side bar, 9, at its front end is joined to the lower side bar, 8, and said two side bars, 8 and 9, extend for a distance substantially parallel. At the rear, where the bars, 8, and 9, are joined is an upward inclined bar, 11, at the top of which is a cross-bar, 12, which unites the two side inclined bars, 11. At the front of the frame is a horizontal cross-bar, 6, which connects the two sides of the frame. This front bar, 6, is curved inwardly, as seen in Fig. 3.

An axle, 1, extends crosswise of the front of the fender and its ends have bearing in boxes, 3, below the bars, 8. Flanged wheels, 2, are fixed on this axle, and said wheels take on the track rails laid on the street and travel thereon. The wheels, 2, are on the inner side of the frame bars, 8, and 9, and said wheels are covered on top by the netting, 22. Suitable netting, 22, is secured to the front bar, 6, the two side bars, 9, the upward inclined

bars, 11, and the back cross bar, 12, and thus forms a front platform substantially horizontal, with a raised back to project upward in front of the car-end, or car-platform.

At each front corner of the fender is a groove, 5, and at each side is a spiral spring, 4, attached by one end to the frame. A rope, 7, extends horizontally across the front of the fender and at the corners rests in the grooves, 5, and each end of this rope is attached to the end of one of the said spiral springs. The rope is thus kept taut in front of the curved cross bar, 6. If this rope comes in contact with an object, the springs will yield and allow it to recede toward the curved bar.

The swivel frame or fifth wheel has a straight bar, 20, centrally pivoted by a bolt, 16, and a semi-circular bar, 21, is attached to the straight bar and swings freely through a guide, 19, which is secured by bolts, 18. Thus the swiveled frame turns on the pivot-bolt, 16, in a horizontal plane. This swiveled frame has loops or eyes, as already stated, and the loops or eyes on the swiveled frame and those on the bars of the fender, denoted, 14, 15, are jointed together by the pin, 17, which forms between the swiveled frame and the fender a joint affording movement in a vertical plane.

A spring, 13, between the car front and the top cross-bar, 12, presses forward on said cross-bar and thereby tends to press the wheels, 2, downward on the track-rails. This spring is at the center of the car-front considered in a crosswise direction.

It will be seen that this fender will cover the track when rounding a curve at a street corner the same as it does on a straight track.

The front edge of the fender, where the rope is, maintains a uniform height above the car-track. It can therefore be set as low as may be deemed practicable for safe running.

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

1. In a safety fender for cars, the combination of a fender having a front-horizontal platform and a raised back which latter projects in front of the car-end; flanged wheels supporting the front of the fender; a "fifth wheel" having a straight bar rigidly attached to a rearward-projecting semi-circular bar

and provided at its front with pivot-eyes; a bolt pivoting said straight bar to the car; at the rear of said pivot a single fixed guide through which the said semi-circular bar may
 5 freely swing in a horizontal plane; and bars attached to the fender and extending rearward of said raised back and jointed to the said pivot-eyes on the "fifth wheel" so as to afford movement in a vertical plane.

10 2. A safety fender for street cars having, in combination, a frame provided at its front with a cross-bar and at each front corner with a groove; a spiral spring, 4, at each side and attached by one end to the frame; and a rope
 15 extending horizontally across the front lower edge of the fender and resting in the said corner grooves and each end attached to the end of one of the spiral springs.

3. A safety fender for street cars having, in combination, a car; a fender frame having an
 20 elevated top-bar extending crosswise in front of the car; flanged wheels supporting the front of the fender frame; a "fifth wheel" or frame swiveled to the bottom of the car; a jointed connection uniting said fender frame
 25 and "fifth wheel" or swiveled frame; and a spring between the car-front and the center of said crosswise top bar of the fender—said spring pressing forward on said cross-bar.

In witness whereof I have hereto set my
 30 hand.

H. B. EWBANK, JR.

Witnesses:

H. B. EWBANK,
 W. J. SRUNINGER.