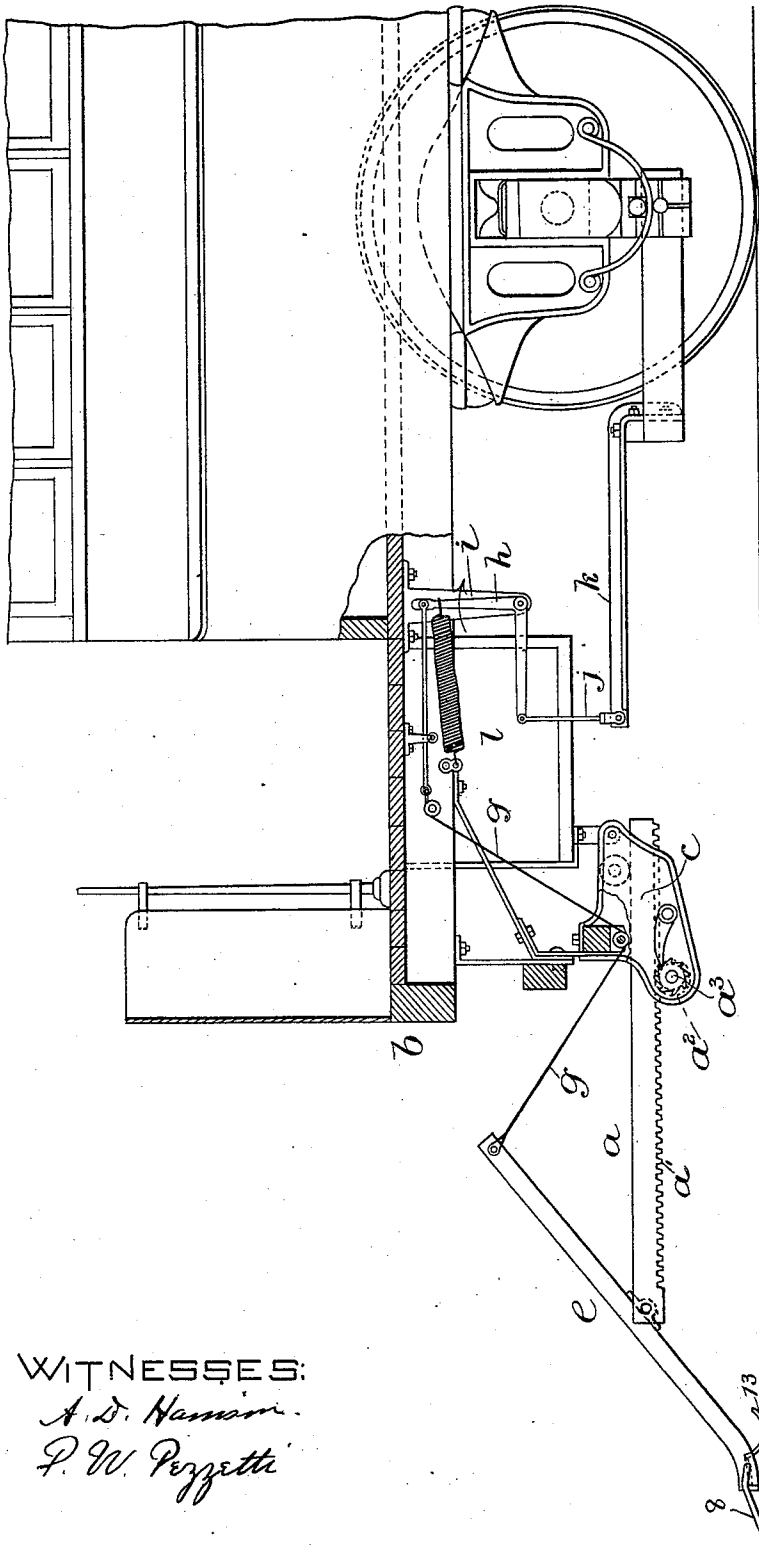


(No Model.)

H. A. WEBSTER.
CAR FENDER.

No. 564,400.

Patented July 21, 1896.



WITNESSES:

A. D. Hammon.

P. W. Pezzetti.

INVENTOR:

H. A. Webster
by *Wm. Lundy*
Att'y.

UNITED STATES PATENT OFFICE.

HAROLD A. WEBSTER, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO
HERBERT B. NEWTON, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 564,400, dated July 21, 1896.

Application filed May 8, 1896. Serial No. 590,698. (No model.)

To all whom it may concern:

Be it known that I, HAROLD A. WEBSTER, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

This invention relates to a car-fender adapted to serve either to pick up a prostrate body or to insure the falling of a person upon the fender if caught while standing without liability in either case of the car passing over the body, the particular object of this invention being to provide means which will insure the retention of the lower end of the fender within a certain distance of the car-track.

The invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

In the accompanying drawing the figure represents a side view, partly in section, of a fender embodying my invention, the parts being shown as attached to a car.

a represents a substantially horizontal frame or support, which is located below and projects forward from the platform *b* of said car, said support being adapted to slide in guides *c*, affixed to the platform, substantially as shown and described in my application, filed March 30, 1896, Serial No. 585,310.

The side bars of the frame *a* are provided with rack-teeth *a'*, which are engaged with pinions *a''*, affixed to a shaft *a'''*, journaled in the guides *c*, the object of this being to enable the fender to be retracted under the platform when not required for use by the rotation of the shaft *a'''*, as described in my said former application.

The fender *e* is pivotally connected with the forward ends of the frame *a* with its center of gravity forward of its pivotal point, the lower end of said fender being curved forward and provided with elastic feet 13, and with a pivoted flexible extension 8, this construction being also substantially the same as in said former application.

In order to hold the fender in its inclined position, with its lower or front edge slightly above the car-track, and to permit at the same time that the fender shall be free to be

tilted by the weight of a body falling upon its upper portion, I provide the following construction.

g represents a strap or strip of steel, or other flexible or inelastic connection extending from the rear end of the fender under and over suitable pins or rollers to one end of a bell-crank lever *h*, pivoted to a bracket *i*, secured to the under side of the car-body. The other end of the lever *h* is connected by means of a link *j* with a bar *k*, the latter being supported by a suitable portion of the car-truck or brake-beam, so as to have no vertical movement with the car-body when the latter is moving and oscillating. A suitable spring *l* is employed to hold the lever *h* in substantially the position indicated in the figure. The bar *k* being fixed and connected by means of the link *j* with the lever *h* will insure the movement of the upper end of the lever *h* in the direction indicated by the arrow whenever the forward end of the car-body moves downward relatively to the car-truck and the bar *k*. This movement of the lever *h*, through the connection *g*, insures the lowering of the upper or rear end of the fender, and the corresponding elevation of the front portion, so as to retain the said lower end of the fender adjacent to but out of contact with the track. When the car-body moves in the reverse direction, so as to permit the spring to oscillate the lever *h* in the direction opposite to that indicated by the arrow, the fender is permitted to reverse its movement, and owing to its being pivoted with its center of gravity forward of its pivotal point, as above described, its lower end will descend relatively, thus preserving its normal distance slightly above the track.

The advantage of locating the spring in a position where it will not exert a strain upon the flexible connection is, that if a body is picked up, or tripped by the fender, and falls upon the upper portion thereof, there will be nothing to have a tendency to throw the fender back to an inclined position, and so discharge the body caught thereon. For instance, if the spring were to connect the lower portion of the fender with the under side of the support *a*, it would keep the flexible connection under tension, and would interfere

with the free movement of the fender to the horizontal position either under the weight of the body thereon or when it is desired to retract the fender under the car. With the construction and arrangement of the spring shown there is nothing to interfere with the retraction of the fender in the manner as illustrated and described in my said former application.

10 I claim—

1. A car-fender comprising a support carried by a car-body, a fender pivotally connected to said support at a point between the front and rear ends of the fender, and with its center of gravity forward of its pivotal point, and equalizing connections between the pivoted fender and a portion of the car-truck, whereby rocking of the car-body on the truck will oscillate the fender, and retain the lower end of the latter adjacent to, but out of contact with the track.

2. A car-fender comprising a support carried by the car-body, a fender pivotally connected to said support at a point between the front and rear ends of the fender, and with its center of gravity forward of its pivotal point, and equalizing connections between the pivoted fender and a portion of the car-truck, said connections including a lever connected at one end to the truck, and having

its other end provided with a flexible, but inelastic connection leading to the fender.

3. A car-fender comprising a support carried by the car-body, a fender pivotally connected to said support at a point between the front and rear ends of the fender, and with its center of gravity forward of its pivotal point, and means for retracting the support and fender beneath the car-platform, and equalizing connections between the pivoted fender and a portion of the car-truck, to hold the lower end of the fender adjacent to, but out of contact with the track.

4. The combination with the support *a* of the fender pivoted thereto, the said support being carried by the car-body, the lever *h* pivotally supported by the car-body, the bar *k* projecting from a portion of the car-truck, link *j*, the flexible connection *g* extending from the lever *h* to the fender, and the spring *l* to hold it, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 4th day of May, A. D. 1896.

HAROLD A. WEBSTER.

Witnesses:

C. F. BROWN,

A. D. HARRISON.