

T. LAMPUS.
CAR FENDER.

No. 579,990.

Patented Apr. 6, 1897.

Fig. 1.

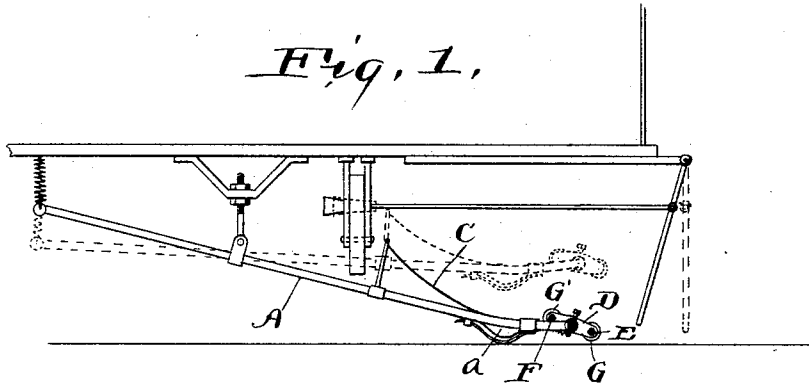


Fig. 2.

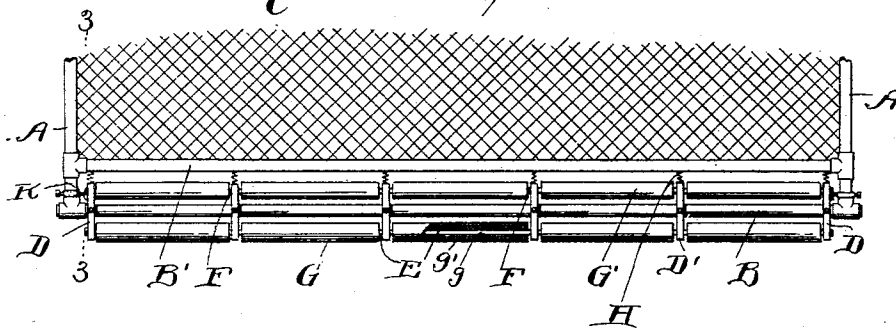
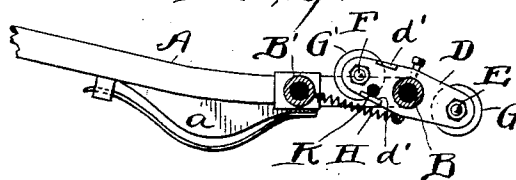


Fig. 3.



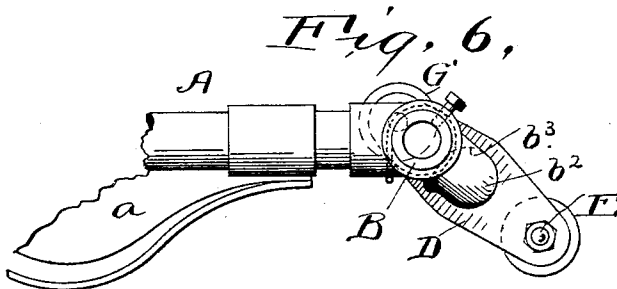
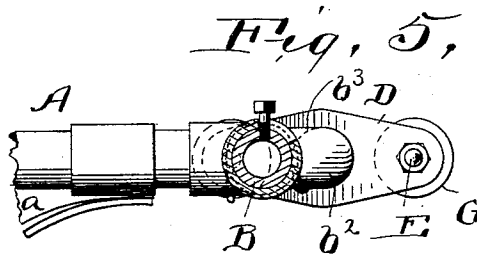
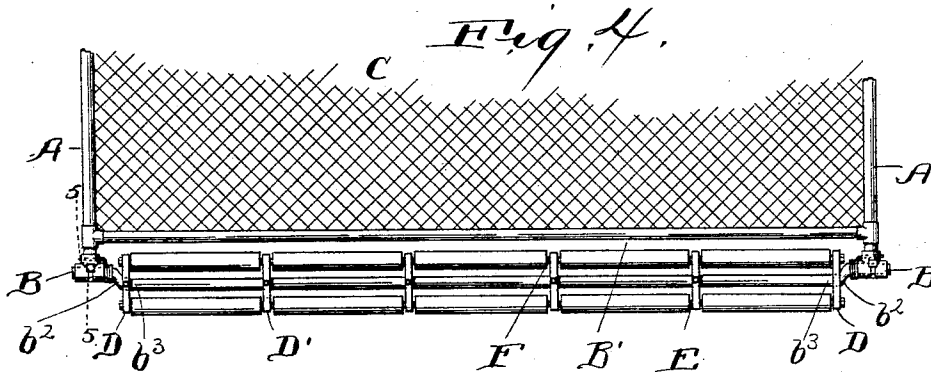
Witnesses.
E. B. Gilchrist
A. M. Rankin

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By E. L. Thurston
his attorney

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UNITED STATES PATENT OFFICE.

THEODORE LAMPUS, OF CLEVELAND, OHIO.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 579,990, dated April 6, 1897.

Application filed September 14, 1896. Serial No. 605,743. (No model.)

To all whom it may concern:

Be it known that I, THEODORE LAMPUS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Fenders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in car-fenders; and the object of the invention is to diminish as far as possible the chances of injuring a person who is tripped by the fender and to insure that such person shall be picked up by the fender rather than that he shall be rolled along on the ground in front of it or that the fender shall pass over him.

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

In the drawings, Figure 1 is a side elevation of a fender containing my invention. Fig. 2 is a plan view of the front end of said fender. Fig. 3 is an enlarged sectional side view, the section being taken on line 3 3 of Fig. 2. Fig. 4 is a plan view of a modified construction. Fig. 5 is a sectional side view on line 5 5 of the construction shown in Fig. 4 when the parts are in their normal position, and Fig. 6 is a view of the same parts when the front rollers have been depressed by a weight.

My invention pertains particularly to the front end of the fender, and is applicable to almost any kind of a fender.

I have shown in the drawings a fender substantially like that which is shown and described in Letters Patent No. 558,404, but I have no intention to limiting my invention to use with this particular fender.

Referring to the parts by letters, A A represent the two side bars of the fender-frame, and B a transverse bar which extends between and is connected with said side bars near their front ends. B represents a second transverse bar which is mounted in the ends of said side bars in front of the bar B', so that it may turn upon its axis. A net C is secured to the side bars and to the bar B'. This bar B is cylindrical and may be made of a piece of gas-pipe. The end plates D are secured by set-screws or other means to said

bar B, and so also are the intermediate plates D'. Two cylindrical rods E F are secured at their ends, respectively, to the plates D D in front of and behind the bar B, as shown.

A plurality of independently-revoluble rollers G are loosely mounted on the front bar E, and similar rollers G' are mounted in like manner upon the rear bar F. These rollers are separated from each other by the plates D', which, as before stated, are secured to the bar B. The two rods E and F pass through the ends of the plates D'. The rollers G and G' are similarly constructed, consisting of metal sleeves g, which, as before stated, are mounted upon the rods E F, and external rubber sleeves g'.

On the under sides of the side bars (and on the cross-bar B' if desired) are secured shoes a or some other equivalent device adapted to bear upon the rails or road-bed when the fender is dropped and to hold the front end of the fender clear of said road-bed. The construction and mode of connecting shoes adapted to produce this result are shown in the prior patent referred to.

The frame consisting of the bar B, plates D D', and rods E F is held in substantially the position shown, that is to say, with the forward rollers G somewhat below the rear rollers G', but out of contact with the road-bed, by springs H. These springs may be in the form of short contractile coil-springs connected at their ends with the plates D D' and the bar B', respectively.

When a fender constructed substantially as described strikes a person, it trips him and he falls on one or both sets of rollers G G'. As the fender moves ahead these rollers are revolved by their contact with said person, and they thereby facilitate the passage of the fender beneath him, and thus insure practically that he shall be picked up by the fender. The fact that both sets of rollers G G' are mounted on a rocking frame, as described, is of advantage because the frame will automatically move so that both sets of rollers will be in contact with the person as the fender passes beneath him. The springs H return the rocking frame and rollers to the position shown when the weight is removed from them. The rocking frame is limited in its movement, so that neither set of rollers

may touch the ground, by means of short fingers K, secured to the side bars A, which fingers extend between lugs d d' on the outer faces of the end plate D. The action of the springs is to hold the frame in the position shown when the lower lugs d are in contact with the pins K. The front rollers G are then held an inch, more or less, above the road-bed, and this is as near as they can ever get to the road-bed. The rollers therefore are always free to be revolved by contact with the person in that direction which will tend to carry him up onto the fender.

While both sets of rollers, mounted substantially as described upon a rocking frame, have a distinct advantage over any other construction, nevertheless the rear set of rollers may be dispensed with and the bar E, upon which the front set of rollers is mounted, may be held immovable in substantially the position shown, whereby said front rollers G are held at the suggested distance above the road-bed.

In Figs. 4, 5, and 6 I show a modified construction in which the bar B is in the form of a crank-shaft, of which b^2 b^2 may be said to represent the crank-arms and b^3 the crank-pin. The ends of this bar are journaled in the side bars A A, as in the other embodiment of the invention. The plates D D' are secured to the crank-pin. Coil-springs surround the end of said bar B, and the ends of said springs engage beneath the side bars A A and the crank-arms b^2 , whereby they exert their force to turn the crank-pin upward. Set-screws which pass through slots in the bearing of the bar B and screw into the bar B prevent said springs from moving the bar B beyond the position shown in Fig. 5. In that position it will be seen that the crank-pin and the axis of the shaft—that is, the bearings for the ends of the shaft—are in substantially the same horizontal plane. Rods E F are secured to the plates D D', as in the other form of the invention, and similar rollers G G' are mounted upon said rods. When the front rollers G strike and trip a person, the bar B is turned in its bearings and the front rollers move rearward and downward, but the rollers never

strike the road-bed, and therefore they revolve as they pass beneath him, as in the other construction.

Having described my invention, I claim—

1. In a car-fender, the combination of a fender-frame, a transverse rocking frame mounted in the front end of the fender-frame, two transverse bars E F forming parts of said frame and located respectively in front of and behind the axis of the frame, a plurality of independent rollers mounted on each bar E F, and springs for returning said rocking frame to its normal and desired position, fingers secured to the fender-frame, and lugs on the sides of the rocking frame which engage with said fingers, thereby limiting the movement of the rocking frame induced by said springs, substantially as and for the purpose specified.

2. In a car-fender, the combination of a fender-frame, a transverse bar B mounted in its front end, the end plates D secured to said bar, the bars E F connected with said end plates in front of and behind the bar B, a plurality of independent rollers mounted upon each of said bars E F, the separating-plates D' secured to the bar B, means for limiting the movement of the rocking frame composed of said bar B, bars E F, and plates D D', and springs for returning said rocking frame to its normal and desired position, substantially as and for the purpose specified.

3. In a car-fender, the combination of a fender-frame, a transverse rocking frame mounted in the front end of the fender-frame, consisting of the bar B, the plates D D', and the two bars E F secured to said plates in front of and behind the bar B, independent rollers mounted on each of said bars E F, fingers secured to the fender-frame, and lugs projecting outward from the outer faces of the two end plates D D, and adapted to be engaged by said fingers, substantially as and for the purpose specified.

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

THEODORE LAMPUS.

Witnesses:

E. L. THURSTON,
N. M. RANKIN.