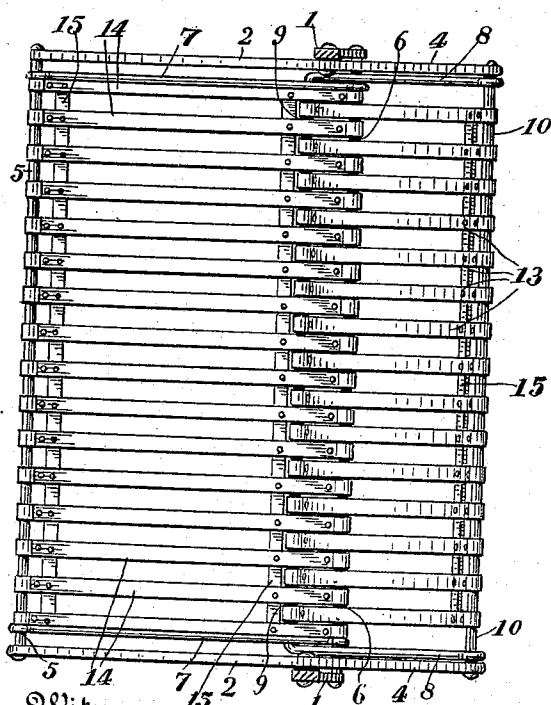
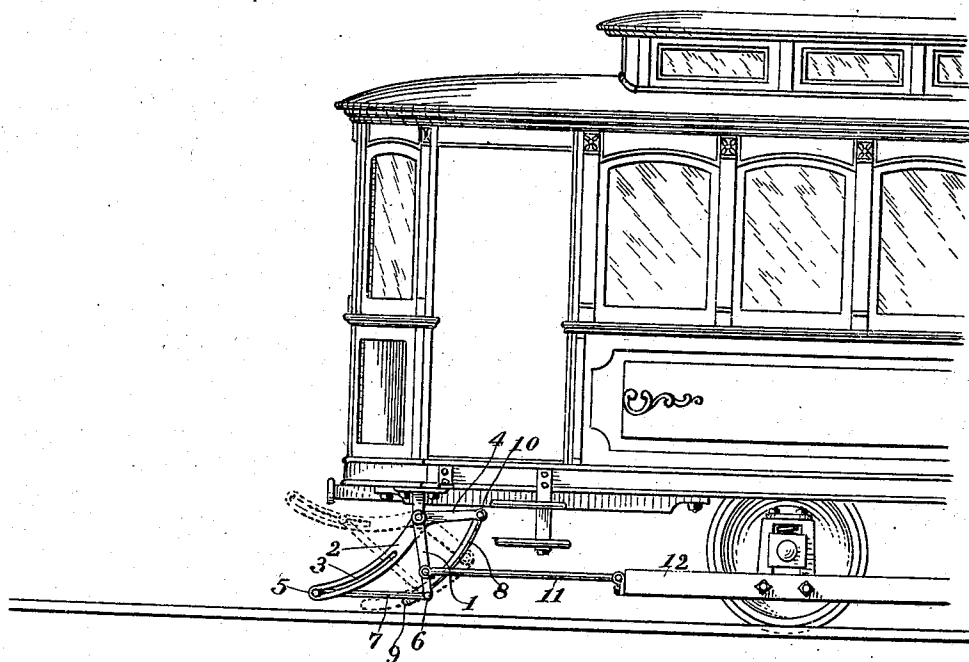


No. 867,971.

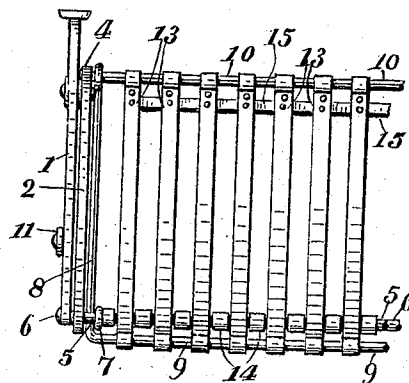
PATENTED OCT. 15, 1907.

J. HOEFLING.
WHEEL FENDER FOR CARS.
APPLICATION FILED JAN. 29, 1907.



Witnesses

Fig. 2.
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Palmer Jones.



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UNITED STATES PATENT OFFICE.

JOSEPH HOEFLING, OF GRAND RAPIDS, MICHIGAN.

WHEEL-FENDER FOR CARS.

No. 867,971.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed January 29, 1907. Serial No. 354,714.

To all whom it may concern:

Be it known that I, JOSEPH HOEFLING, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Wheel-Fenders for Cars; 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 wheel fenders for cars.

In such devices it is necessary to carry the fender a sufficient distance from the pavement or roadway so that it will not contact the same, and in the event that the obstruction should be low down, or present a rolling body to the fender, the latter is liable to rise and pass over the obstruction instead of picking it up, thus failing to operate properly.

One of the objects of my device is to provide a fender with operative means to pick up an obstruction that may chance to pass under the front of the fender, and it consists essentially of the arrangement of a horizontally arranged front fender, and an inclined rear fender connected by such means that when the front fender rises over an obstruction, the rear fender is moved downward in contact with, or close to, the road bed and in proper position to pass under and pick up whatever obstruction may have passed the forward fender; and in various novel features, as hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which;

Figure 1. is a side elevation of the end of a street railway car with my improved fender attached thereto; Fig. 2. an enlarged plan view of my device; and Fig. 3, a detail of one end of the same shown in front elevation.

Like numbers refer to like parts in all of the figures.

To support my device in place, I provide hangers 1 attached to the car near the end, and at the respective sides thereof, which hangers extend downward to near the road bed at the lower ends and sufficiently above the same to avoid contact therewith. These hangers are preferably braced by rods 11 extending from the truck frame 12 horizontally to the hangers and pivoted to each at the respective ends.

Pivoted to each hanger near the body of the car are levers, one member of each extending forward and downward in a curve as at 2, and provided with longitudinal slots 3 in which is movably supported the front rod 5 of the front fender. The other members 4 of these levers extend rearward beneath the car and support the respective ends of the upper rod 10 of the rear fender which latter extends in a curve downward and forward and is slidably supported at its lower end upon a rod 6 connecting and supported by the lower ends of the hangers 1. Side rods 7 connect the rods 5 and 6

thus forming a frame for the front fender, pivotally supported at the rear by the lower ends of the hangers, and slidably supported at the front in the slots 3 of the bell crank levers. In like manner the rod 10 together with the side rods 8 and a transverse rod 9 below the front fender constitute a frame for the rear fender, supported at the rear by the arms 4 of the bell crank levers and slidably supported on the rod 6 at the front. To complete the fenders the forward fender is provided with flexible strips 14 preferably of metal extending from the rod 5 to the rod 6 and spaced apart at intervals to permit of similar strips 13 of the rear fender to extend therebetween from the rod 9 to the rod 10. These various strips 13 and 14 are held in spaced apart relation by transverse spacing strips 15 riveted or otherwise secured thereto. In operation, if an obstruction passes above the front fender and falls upon the strips 14, it will be supported and carried thereby. If, however, the obstruction should be low down, and pass or roll under the front fender and raise the same, the front arms 2 of the bell crank levers will be raised thereby, which will cause the rear arms 4 to descend and thus carry the rear fender downward at the front and in close relation to the road bed. It will thus pass under and pick up the obstruction and carry the same upon the strips 13.

What I claim is:

1. In a fender, the combination of a front fender pivoted at the rear and upwardly movable at the front, levers having forward portions supporting the front of said fender and moved upward thereby, and a downwardly and forwardly movable rear fender supported and moved by the rearward portions of said levers.

2. In a fender, a front fender pivotally supported at the rear, pivoted levers movable upward at their front ends and supporting the front of said fender, and also movable downward at their rear ends, a rear fender pivoted at the rear to the rear ends of the levers and supported thereby, and means for movably supporting the front of the rear fender.

3. In a fender, a horizontally disposed front fender pivotally supported at the rear, an inclined rear fender extending through the rear of the front fender and slidable downward and forward therethrough, pivoted levers supporting the front of the front fender and the rear of the rear fender, and oppositely adjusting the respective fenders.

4. In a fender, the combination of downwardly projecting hangers, levers pivoted to the hangers and oppositely projecting therefrom, a horizontally disposed fender slidably connected at the front to the levers and pivoted at the rear to the lower ends of the hangers, an inclined rear fender slidably supported at the front by the hangers and pivotally supported at the rear by the rear ends of the levers.

5. In a fender, the combination of downwardly projecting hangers, levers pivoted to the hangers and oppositely extending therefrom, one portion of each lever projecting forward and downward from the pivot and the other portion of the same projecting rearward from the pivot, a horizontally disposed fender slidably connected to the

levers at the front and pivotally supported at the rear by the hangers, an inclined rear fender slidably supported by the hangers at the front and pivotally supported at the rear by the rear portions of the levers.

- 5 6. In a fender, downwardly projecting hangers, a rod connecting the lower ends of the hangers, levers pivoted to the hangers near the upper ends thereof and oppositely projecting therefrom, the forward portions of said levers being curved downward and provided with longitudinal slots, a rod slidable in said slots, a front fender attached to said rods, a rear fender arranged inclined and extending through the front fender and also slidably supported at the front on the rod connecting the hangers and pivotally supported at the rear by the rear ends of the levers.
- 10 7. In a fender, downwardly projecting hangers, a rod connecting the lower ends of the hangers, levers pivoted
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to the hangers near the upper part thereof and oppositely extended therefrom, the forward portions of said levers being curved downward and provided with longitudinal slots, a rod slidable in said slots, strips connecting said rods and spaced apart, a rod connecting the rear ends of the levers, a transverse rod beneath the rear of the front fender, side rods connecting the last named rod with the rod connecting the rear ends of the levers, and strips extending between the first named strips and connected to the two last named rods.

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

JOSEPH HOEFLING.

Witnesses:

LUTHER V. MOULTON,
GEORGINA CHACE.