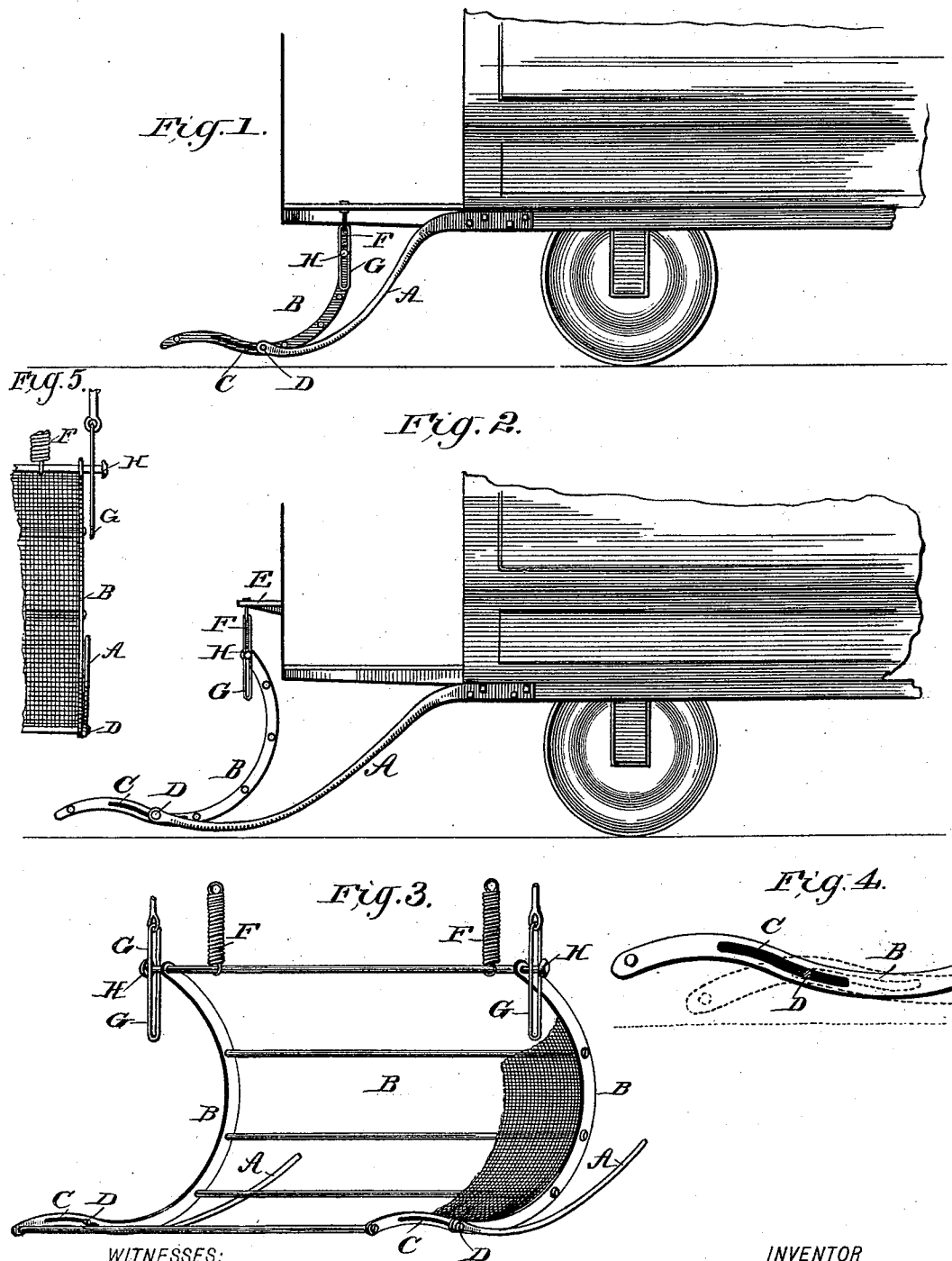


(No Model.)

W. V. McMANUS.
CAR FENDER.

No. 518,115.

Patented Apr. 10, 1894.



WITNESSES:

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WILLIAM V. McMANUS, OF BALTIMORE, MARYLAND.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 518,115, dated April 10, 1894.

Application filed November 8, 1893. Serial No. 490,346. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM V. McMANUS, residing at Baltimore city, in the State of Maryland, have invented a new and useful
5 Improvement in Car-Fenders, of which the following is a specification.

My invention is an improvement in car fenders and seeks to provide an automatically operating car fender which will be forced
10 rearward by contact with an obstruction on the track, will when so forced back be depressed or moved down close to the track and which is freely suspended at its upper rear edge so as to efficiently cushion the fall of a
15 person upon it.

The invention also seeks to provide novel constructions and arrangements whereby in case the suspending devices should by any possibility break the receiving frame will be
20 prevented from falling to the ground.

The invention has for further objects other improvements and consists in the novel constructions and combinations of parts as will be hereinafter described and pointed out in
25 the claims.

In the drawings—Figure 1 is a side view of the improved fender applied to the car with the receiving frame extended under the car platform. Fig. 2 is a similar view showing the
30 receiving frame extending up in front of the dash board. Fig. 3 is a perspective view of the improved fender the guide bars being partially broken away. Fig. 4 is a detail view showing the inclined guide bearing as will be hereinafter described, and Fig. 5 is a detail
35 partial front view.

In carrying out my invention I provide guide bars A and a fender proper or frame B, which latter for convenience of reference may
40 be termed the receiving frame. The guide bars A are rigid being bolted or otherwise suitably secured to the car and usually and preferably to the truck thereof as shown. At their front ends the guide bars extend to a
45 point a short distance above the track usually about four inches. The receiving frame B is curved into a somewhat basket like form and is provided with a covering of wire netting over its bars. This frame has side bars which
50 curve from front to rear and may be made tubular or otherwise as desired. At its lower

or front end the frame B has a sliding connection with the fixed guide and by preference it is so connected with the said guide that as the frame B is pushed rearwardly it
55 will be depressed toward such track. To this end I include in the devices connecting the frame and guide an inclined bearing which is inclined to the horizontal and so formed that when the frame is pushed rearwardly
60 the inclined bearing will serve to depress it. To this end I slot one of the parts A B and provide the other with a pin or projection entering such slot and operating therein. As shown and preferred the receiving frame is
65 slotted the slots C thereof being preferably slightly curved and inclining upward toward the front end of the frame and the pin or projection D is extended from the guide bars and enters and operates in the slots C. In
70 practice the projections may or may not be supplied with anti friction rollers to operate in the slots C as proves desirable or necessary. In front of the slots C the receiving frame is curved or dips slightly downward. This construction is quite simple and operates efficiently, the front end of slot C being about
75 three inches higher than the projections D it follows that if the frame B be moved back the full distance its front end will move down
80 three inches and as the front end of the frame B is normally about four inches above the track this will throw such end down to within about one inch from the ground so that it will be practically impossible for the fender
85 to pass over even a small child upon the track. Manifestly the proportions may be varied the distances specified being merely for purposes of illustration. At its upper rear end the fender may either extend under the platform
90 as shown in Fig. 1, or it may extend up in front of the dash as shown in Fig. 2 without departing from my invention. In the construction shown in Fig. 2 a bracket E is provided for the connection of the suspending
95 springs and links presently described. At its said rear or upper end the receiving frame is freely suspended as distinguished from being pivoted, this free suspension permitting a forward and backward swinging as well as
100 a pivotal movement of the frame at such upper end. It is preferred to suspend this upper

rear end on springs F as shown, this form of suspension permitting the swinging of the frame B as desired and also cushioning the shock of the body falling or thrown on the receiving frame. To limit the downward movement of the frame B and also guard against the said frame falling in case the suspending springs F should break, I provide links G, which are freely suspended so they will not interfere with the free suspension of the frame B and these links are entered by projections H from the receiving frame so that in case the springs break the links will catch the frame and prevent its falling. As a further precaution, I extend the projections H over the line of the guide bars. Thus in case both the springs and the suspended links should break the fall of the receiving frame will be stopped by the guide bars.

It will be seen that the operation of the fender is entirely automatic, it requiring no attention whatever on the part of the motor-man or gripman.

Manifestly modifications may be made in the details and while the special constructions as shown are preferred, I do not desire to be limited in the broad features of my invention thereto.

Having thus described my invention, what I claim is—

1. An improved car fender consisting of the fixed guide and the receiving frame freely suspended at its upper end and having a sliding connection at its lower front edge with said guide, substantially as set forth.

2. An improved car fender comprising the guide frame, the receiving frame suitably supported at its upper edge and having a sliding connection at its lower front edge with the guide frame, such sliding connection including a bearing inclined to the horizontal whereby the front edge of the receiving frame may be depressed as it is pushed rearwardly, substantially as set forth.

3. An improved car fender comprising the receiving frame, a support and guide for the front edge of said frame, connections between said frame and guide having a bearing inclined to the horizontal, and a support for the rear edge of the frame independent of the front support and guide substantially as set forth.

4. In a car fender, the combination with the guide and the receiving frame, one of which has inclined slots of pins or projections extended from the other part and entering and operating in such slots, substantially as set forth.

5. In a car fender, the combination with the receiving frame and supporting devices at the lower front edge thereof, of springs supporting the upper rear end of said frame all substantially as and for the purposes set forth.

6. In a car fender, the combination of the guide and support, the receiving frame having a sliding connection at its front edge

therewith and a spring support for the upper rear edge of the said frame, substantially as set forth.

7. The combination in a car fender, of the receiving frame having slots which incline upward toward their front ends and the guides having pins or projections entering said slots, substantially as set forth.

8. A car fender comprising a receiving frame freely suspended at its upper rear end as distinguished from being pivoted and guide devices whereby to control the forward and backward movement of its front or lower end, substantially as set forth.

9. A car fender having a fixed guide a receiving frame having a sliding connection at its lower front edge with said guide, and springs by which said frame is suspended at its upper rear end, substantially as set forth.

10. The combination in a car fender of the receiving frame freely suspended at its upper rear edge as distinguished from being pivoted thereat, and guide devices for the lower front edge of said frame adapted to depress the latter as it is pushed rearwardly, substantially as set forth.

11. The combination in a car fender of the receiving frame, springs by which said frame is freely suspended at its upper rear end and guide devices for its front end adapted to depress said end as it is pushed rearwardly, substantially as set forth.

12. In a car fender the combination with the receiving frame provided near its front end with slots inclined upwardly toward their front ends, guides having pins or projections entering said inclined slots and springs on which said frame is freely suspended at its upper rear end, substantially as set forth.

13. In a car fender the combination of freely suspended links, the receiving frame having projecting portions operating in said links and devices whereby said frame is freely suspended at its upper rear end, substantially as and for the purposes set forth.

14. In a car fender the combination of the suspended links, the receiving frame having portions entering and operating in said links and the springs on which said frame is suspended, substantially as set forth.

15. In a car fender, the combination of the guide bars, the receiving frame having its rear end arranged above said guide bars and having portions projecting laterally over the lines of said bars and springs on which said frame is suspended at its upper rear end, substantially as set forth.

16. In a car fender, the combination of the guide bars, the links suspended freely above said bars, the receiving frame having at its upper free end lateral pins or projections entering and operating in the links and extended laterally over the guide bars and springs on which the upper rear end of the frame is supported, substantially as set forth.

17. The improvement in car fenders substantially as herein described, consisting of

the guide bars, the links suspended freely above said bars, the receiving frame having at its upper end rods entering said links and projecting above the guide bars, and
5 provided near its front end with slots inclining upward toward their front ends, pins or projections from the guide bars entering said slots and springs on which the rear end of the frame is freely suspended, all substantially as and for the purposes set forth.

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Witnesses:

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