

(No Model.)

2 Sheets—Sheet 1.

S. F. MOORE.  
CAR FENDER.

No. 601,155.

Patented Mar. 22, 1898.

Fig: 1.

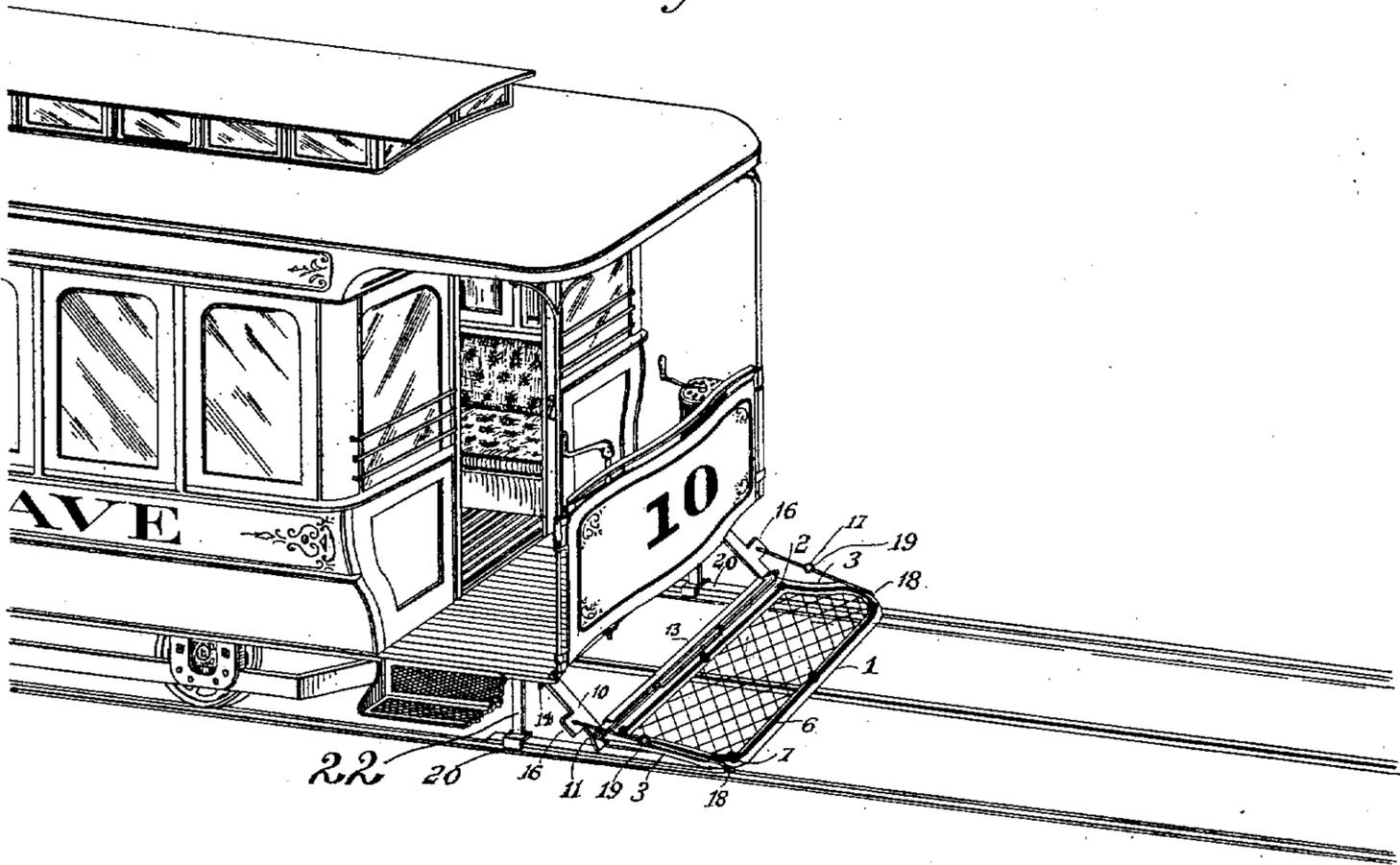
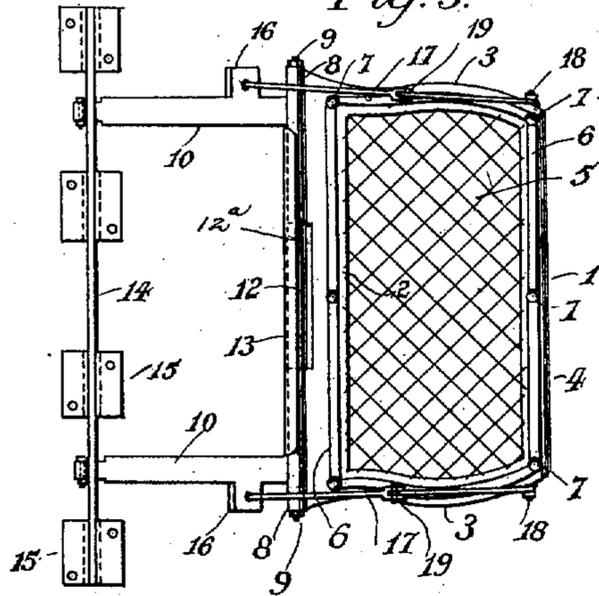


Fig: 3.



WITNESSES

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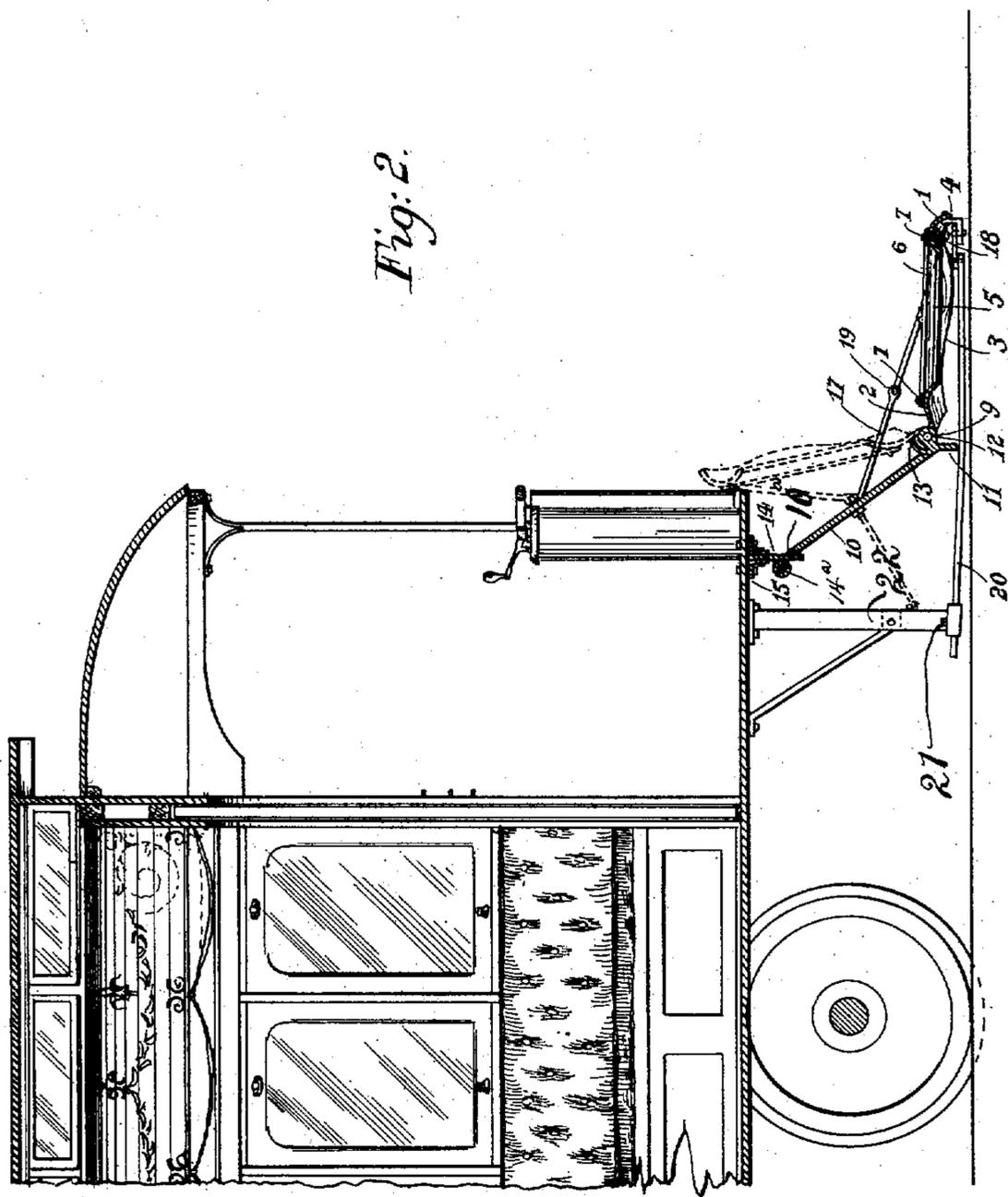
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2 Sheets—Sheet 2.

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# UNITED STATES PATENT OFFICE.

SUSAN F. MOORE, OF PEABODY, MASSACHUSETTS.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 601,155, dated March 22, 1898.

Application filed November 28, 1896. Serial No. 613,774. (No model.)

*To all whom it may concern:*

Be it known that I, SUSAN F. MOORE, a citizen of the United States, residing at Peabody, in the county of Essex and State of Massachusetts, 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.

This invention relates to car-fenders, and has for its object to provide a simple, cheap, and efficient guard or fender adapted for use either upon street-cars or upon steam, passenger, or freight cars, the said fender being adapted when not in use to be folded against the dashboard in a compact manner, whereby it will not interfere with the coupling together of cars.

The various objects and advantages of the invention will appear in the course of the ensuing description.

The invention consists in an improved car-fender embodying certain novel features and details of construction, as hereinafter particularly described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved fender, showing also a portion of the car to which the fender is attached. Fig. 2 is a longitudinal section through the same, showing the folded position of the fender in dotted lines. Fig. 3 is an enlarged plan view of the fender detached from the car.

Similar numerals designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates the scoop-frame, having parallel front and rear portions 1 and 2, respectively, and the forwardly-converging side bars 3, thus making the frame wider at its rear portion than at its front. This frame is of such width at its rear portion as to extend laterally beyond the sides of the dashboard, so as to project in advance of the running-boards, and at its front end is preferably only of sufficient width to extend between and rest upon or immediately over the rails. In side elevation the side bars 3 are of ogee shape, causing the scoop-frame to bulge outward from the dashboard or car-platform at its upper portion and to present a concaved portion at its advance end. The front bar 1 of the scoop-frame is also rolled,

as indicated at 4, so as to form a shoe lying over the road-bed to prevent the front end of said frame from becoming caught and injured. The scoop-frame is covered with wire-netting, as indicated at 5, the meshes of said netting being sufficiently large not to interfere with or impede the progress of the car, the said netting forming a yielding receptacle for the person picked up thereby and preventing injury to said person. Extending around the scoop-frame upon its upper surface are thick strips 6 of rubber, the same intersecting at the corners of the frame and being provided at said corners and also at intermediate points with upwardly-projecting knobs 7, of rubber, adapted to contact with the dashboard when the scoop-frame is folded upward against the same. The scoop-frame thus constructed may be, if desired, and is preferably formed from sheet metal, the side, front, and rear portions thereof being rounded into U-shape in cross-section, as shown, in order to provide the necessary stiffness.

The scoop-frame is provided at its rear edge with spaced loops or knuckles 8, through which passes a connecting bolt or pivot 9, which connects said scoop-frame to a pair of supporting-arms 10. These arms 10 extend longitudinally of the car and parallel to each other and are connected at their front ends by a cross-bar 11, having on its upper side a loop or knuckle 12, through which the bolt or pivot 9 passes, said loop lying between the spaced knuckles 8 and the scoop-frame. The advance edge of the cross-bar 11 is turned downwardly to contact with the bars 20 and forms a rest for the scoop-frame, as shown in the longitudinal section, and the rear edge of said cross-bar is turned upward and rolled over, as indicated at 13, to form a transverse stop-shoulder integral with the cross-bar 11 for taking the back thrust of the scoop-frame when subjected to a sudden shock.

Where the knuckles 8 and 12 fit between each other, it is sometimes difficult to secure a tight-fitting joint, and when the hinge-bolt is passed through the eyes and secured there is considerable lost play, as noted in the drawings at 12<sup>a</sup>. As a result when an object is struck by the fender the scoop is thrust backward and would cause the blow and strain to fall entirely on the hinge-bolt were it not for the guard or stop-shoulder 13, which takes the back thrust of the scoop-frame and prevents

wear and breakage of the hinge-bolt and knuckles.

The arms 10 have their rear extremities reduced and extended through openings 10<sup>a</sup> in a transverse beam 14, which is preferably constructed of metal and provided at its upper edge with oppositely-projecting ears 15, by means of which it may be secured by suitable fasteners to the bottom of the car or the bottom of the car-platform, as may be most convenient.

The openings in the beam 14 are of a size which will allow the arms 10 to droop and at the same time limit their downward movement, so as to maintain the scoop above the road-bed.

The rear ends of the arms 10 are held by means of removable pins 14<sup>a</sup>, passing through openings therein.

The arms 10 are provided with laterally-projecting ears 16, and from these ears rods or braces 17 extend forward to the scoop-frame and are connected thereto by means of suitable clips 18 on the under side of the side bars 3 of said frame. These rods or braces are detachably connected to the scoop-frame, so that said scoop-frame may be folded up against the dashboard when not in use, and the rods or braces 17 are jointed about centrally of their length and connected at 19, so that when the fender is not in use they may be folded back upon themselves and caused to occupy a position under the car-platform, where they will not interfere with the running-gear. The function of the rods or braces 17 is to prevent the forward end of the scoop-frame from lifting, so as to allow a person or object to pass under said frame and get under the car-wheels. 20 designates a slide-frame consisting of parallel spaced longitudinal bars connected at their forward ends to a cross-bar and adjustably arranged under the car-bottom. These bars may be held at any point by set-screws 21, passing through the depending hangers 22, in which the bars are mounted to slide. This slide-frame is adapted to be detachably connected at its forward end to the scoop-frame for the purpose of assisting the jointed rods or braces 17 in maintaining the scoop-frame in proper working position. The bars 20 also pass under the downturned cross-bar 11 and assist in supporting said cross-bar and the arms 10. One or the other of said devices may, however, be dispensed with without departing from the spirit or sacrificing any of the advantages of the invention.

In order to fold the fender, as shown in dotted lines in Fig. 2, the bars 20 are detached at the forward ends from the scoop-frame and slid backward through the hangers 22. The front end of the scoop is then lifted to the dotted-line position, the braces 17 sliding back through the ears 16. In this position nothing projects beyond the hinged connection of the scoop and its supporting-arms and cross-bar 11.

The fender above described is simple and

reliable, may be manufactured at a slight cost, and when not in use may be folded upwardly against the dashboard of the car, so as to admit of the coupling together of cars.

Having now described the invention, what is claimed as new is—

1. In a car-fender, a pair of arms adapted to pass under the car and to be detachably connected to hangers on the bottom of a car beneath the platform thereof, and a cross-bar connecting the free ends of said arms and extended upward to form a stop-shoulder for the scoop, in combination with a scoop pivotally connected to said cross-bar, and braces interposed between said scoop and arms and arranged below the plane of the car-platform, substantially as and for the purpose specified.

2. In a car-fender, a pair of arms adapted to be detachably connected to hangers on the bottom of a car beneath the platform thereof, a cross-bar connecting the front ends of said arms and having an upwardly-projecting stop-shoulder, a scoop pivotally connected to said cross-bar and abutting against said stop-shoulder, braces interposed between said scoop and arms, bars connected to the scoop-frame at each side and extending beneath the car-platform and adjustably attached to hangers under the car, and fastening means for said bars, substantially as described.

3. In a car-fender, the combination with spaced and substantially parallel supporting-arms arranged beneath the car-platform and connected at their front ends by a cross-bar having its forward edge turned downward and its rear edge turned upward to form a transverse stop-shoulder, of a scoop-frame pivotally connected to said cross-bar on its upper side and bearing against the downturned edge thereof, the said edge forming a rest for holding the scoop-frame in proper working position, and the upturned rear edge of said cross-bar serving to take the back thrust of the scoop-frame when subjected to a sudden shock, substantially as described.

4. In a car-fender, a transverse beam secured to the under side of the car and provided with spaced openings, in combination with spaced parallel supporting-arms having their rear ends reduced and removably fitted in the said openings, a cross-bar connecting said arms at their forward ends and embodying an upwardly-projecting stop-shoulder, a scoop-frame pivotally connected at its rear edge to said cross-bar and bearing against said stop-shoulder, and one or more braces interposed between said arms and laterally-projecting ears on the side bars of the scoop-frame, all arranged for joint operation, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SUSAN F. MOORE.

Witnesses:

SOPHIA W. WHEELER,  
SUSAN A. HUTCHINSON.