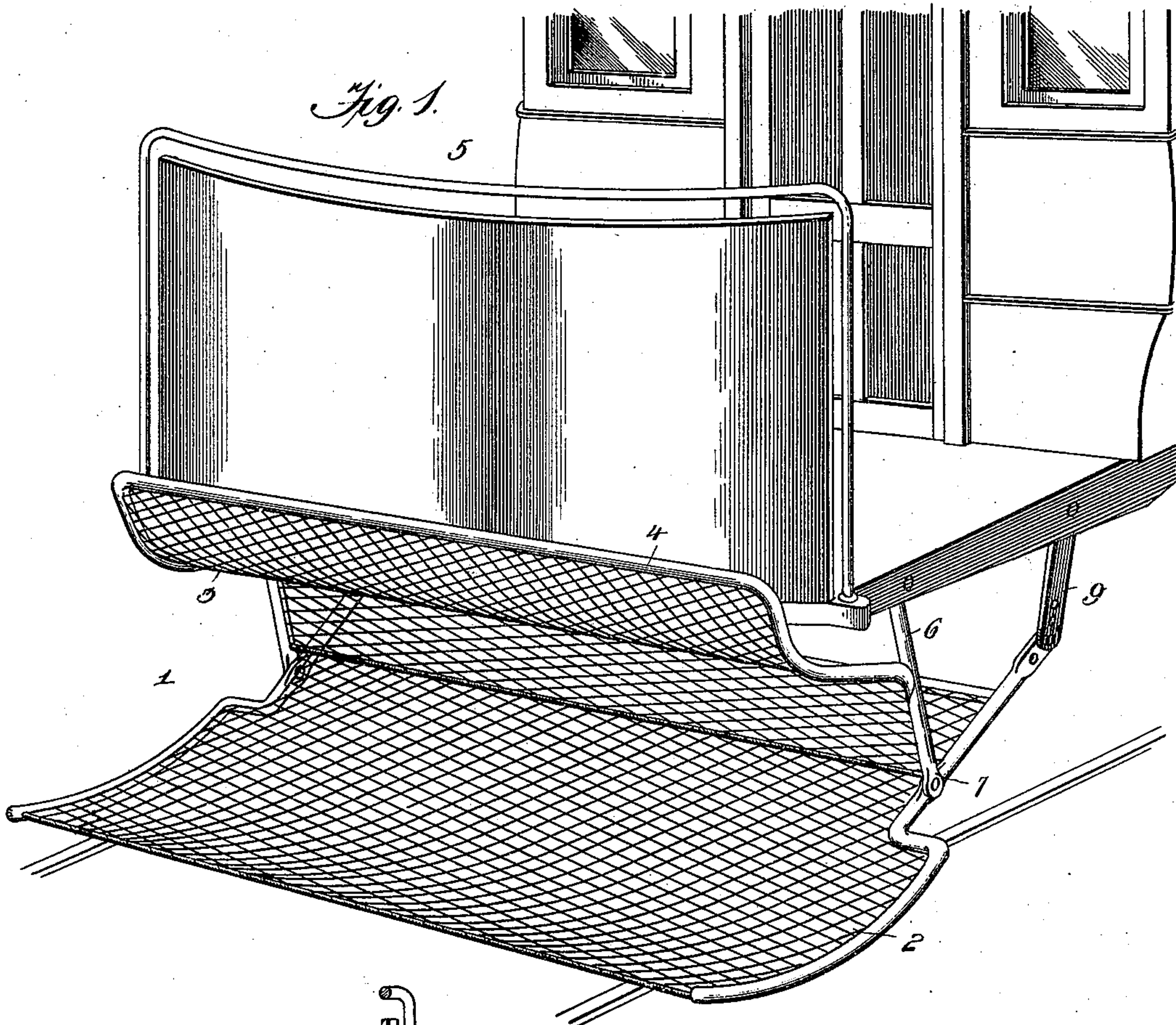


(No Model.)

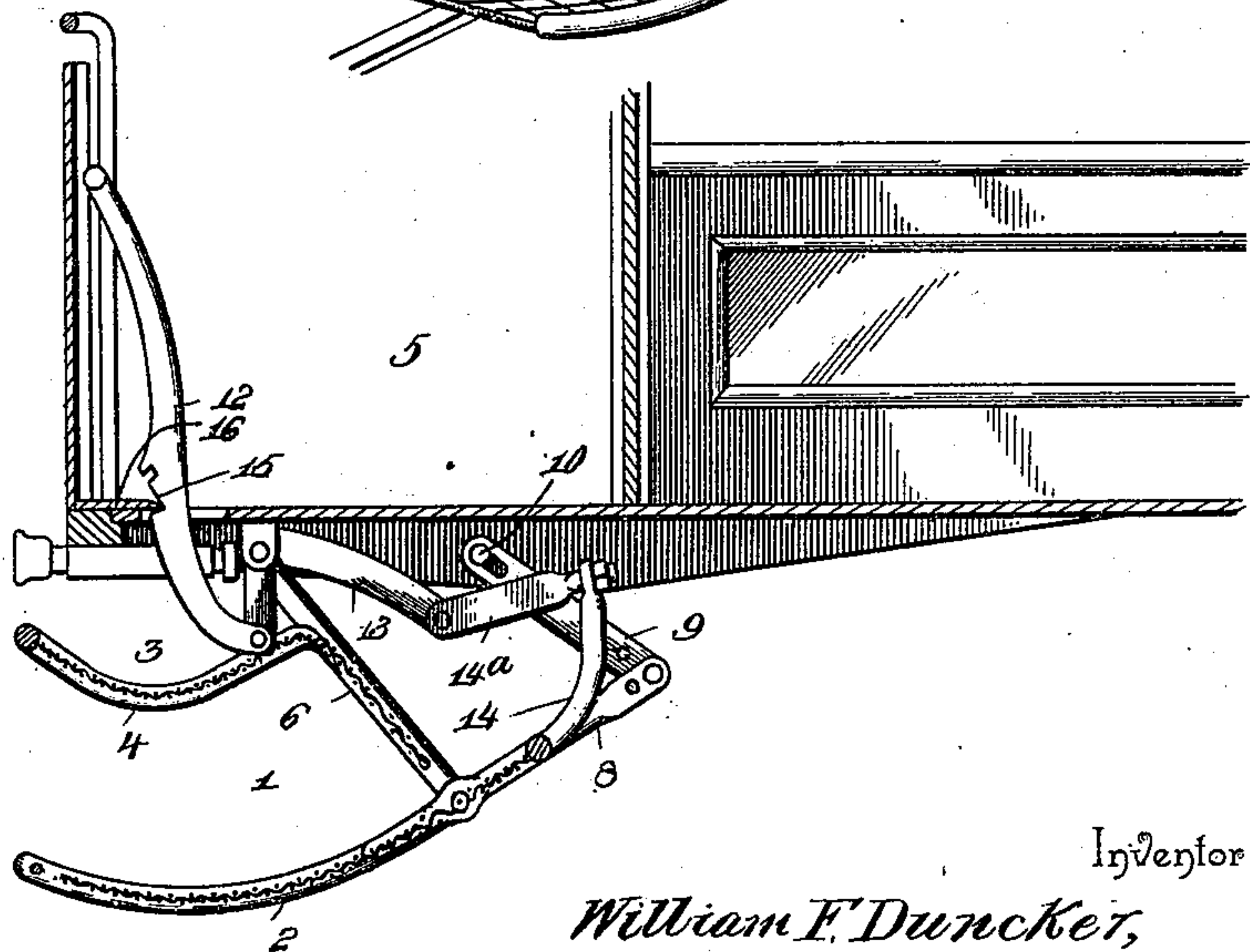
W. F. DUNCKER.  
CAR FENDER.

No. 550,387.

Patented Nov. 26, 1895.



*Fig. 2.*



Inventor

*William F. Duncker,*

Witnesses

*John C. Shaw*  
*J. F. Riley*

By *his* Attorneys,

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

WILLIAM F. DUNCKER, OF STEELTON, PENNSYLVANIA.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 550,387, dated November 26, 1895.

Application filed August 14, 1895. Serial No. 559,261. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. DUNCKER, a citizen of the United States, residing at Steelton, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Car-Fender, of which the following is a specification.

The invention relates to improvements in car-fenders.

10 The object of the present invention is to improve the construction of car-fenders, and to provide a simple and inexpensive one capable of being readily applied to various kinds of street-railway cars and adapted to catch  
15 a person and to prevent him from coming in contact with the bumper or any other portion of a car.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a car-fender constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view of the same, the car-fender being shown swung inward beneath the car.

30 Like numerals of reference indicate corresponding parts in both figures of the drawings.

35 1 designates a car-fender, comprising a lower substantially-rectangular section 2 and an upper substantially-rectangular section 3. Both sections consist of a suitable supporting-frame and a covering of netting, and the upper section forms a shield and has its upper portion 4 curved and arranged in advance of the bumper of a car 5, and is adapted to prevent a person from coming in contact  
40 with the said bumper or the car. The upper section or shield 3 is suspended from the car by a pair of oppositely-disposed arms 6, projecting upward in rear of the section or shield 3, and having their upper ends pivoted to the  
45 car or to suitable hangers, as desired.

50 The lower section 2 is pivoted near its rear or inner edge to the bottom or lower edge of the upper section or shield 3, which is provided with suitable perforated ears or arms 7, and the said lower section has at opposite sides rigid rearwardly-extending arms 8 and is

loosely or movably connected with the car by link-rods 9. The link-rods 9 are adjustably pivoted to the rearwardly-extending arms 8, being provided with series of perforations, 55 and the upper ends of the link-rods or bars are provided with slots receiving pivots or fastening devices 10, adapted to be mounted directly on the car or on suitable hangers depending from the car. 60

The lower section of the fender is slightly curved and is designed to be arranged normally slightly above the rails and to project in advance of the car, and it is adapted, when necessary, to be pressed close to the rails to 65 catch a person, and is capable of being swung inward beneath the car, as illustrated in Fig. 2 of the accompanying drawings. It may be operated either by hand or foot, if desired; but, as illustrated in the accompanying draw- 70 ings, an operating lever or bar 12 is arranged substantially vertically and passes through a slot in the bottom of the car and has its lower terminal connected to one arm of a bell-crank lever 13. The bell-crank lever is ful- 75 crumed at its angle beneath the car and depends therefrom, and its rear arm is connected by a link 14<sup>a</sup> with a centrally-disposed arm 14 of the lower section of the fender. The arm 14 is rigid with the lower section of the fen- 80 der and curves upward and is connected with the rear end of the link. The lower portion of the operating-lever is curved and is fulcrumed against the car at the front of the slot when the car-fender is swung inward, 85 and it is provided with a notch 15, adapted to engage a plate 16 to secure the fender in its folded position. By swinging the operating bar or lever backward the car-fender is thrown outward in position for catching a person 90 and is held firmly downward against the rails, and the slots of the links 9 permit a limited inward movement of the fender, sufficient to cushion it slightly when he comes in contact with the fender. 95

It will be seen that the car-fender is simple and comparatively inexpensive in construction, that it is positive and reliable in operation, and that it is capable of being readily applied to various kinds of cars. It will also 100 be apparent that it is capable of catching the person and of preventing him from coming in



contact with the bumper or other portion of the car, and that it is adapted to be folded beneath the car when not in use.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

10 1. In a car fender, the combination with a car, of an upper section or shield hingedly connected at a point intermediate of its ends with the car and suspended therefrom and having its upper portion arranged to extend  
15 in advance of the bumper, a lower section hinged at its back to the lower edge of the upper section or shield and extending outward therefrom, links located in rear of the section or shield and movably connecting the  
20 rear portion of the lower section with the car, whereby the car fender is adapted to swing bodily outward and inward, and mechanism for operating the sections, substantially as described.

25 2. In a car fender, the combination with a car, of an upper section or shield provided intermediate of its ends with upwardly extending arms hingedly connected with the car and suspending the upper section or shield  
30 therefrom, the lower section hinged to the bottom of the upper section or shield and ex-

tending outwardly therefrom and provided with rearwardly extending arms, and links hingedly connecting the rearwardly extending arms with the car and capable of a limited longitudinal movement, and means for operating the sections, substantially as described. 35

3. In a car fender, the combination with a car, of an upper section or shield hingedly connected at a point intermediate of its ends with the car and having its upper portion arranged to extend in advance of the bumper of the car, a lower section hinged to the bottom of the upper section or shield and projecting outward therefrom, links loosely connected with the car and pivotally connected with the lower section in rear of the upper section or shield, a bell-crank lever fulcrumed at its angle beneath the car, an operating bar or lever extending through the bottom of the car and connected with the front arm of the bell-crank lever, and a link connected with the rear arm of the bell-crank lever and with the lower section of the fender, substantially as described. 40 45 50 55

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. DUNCKER.

Witnesses:

H. F. RILEY,

G. C. SHOEMAKER.