

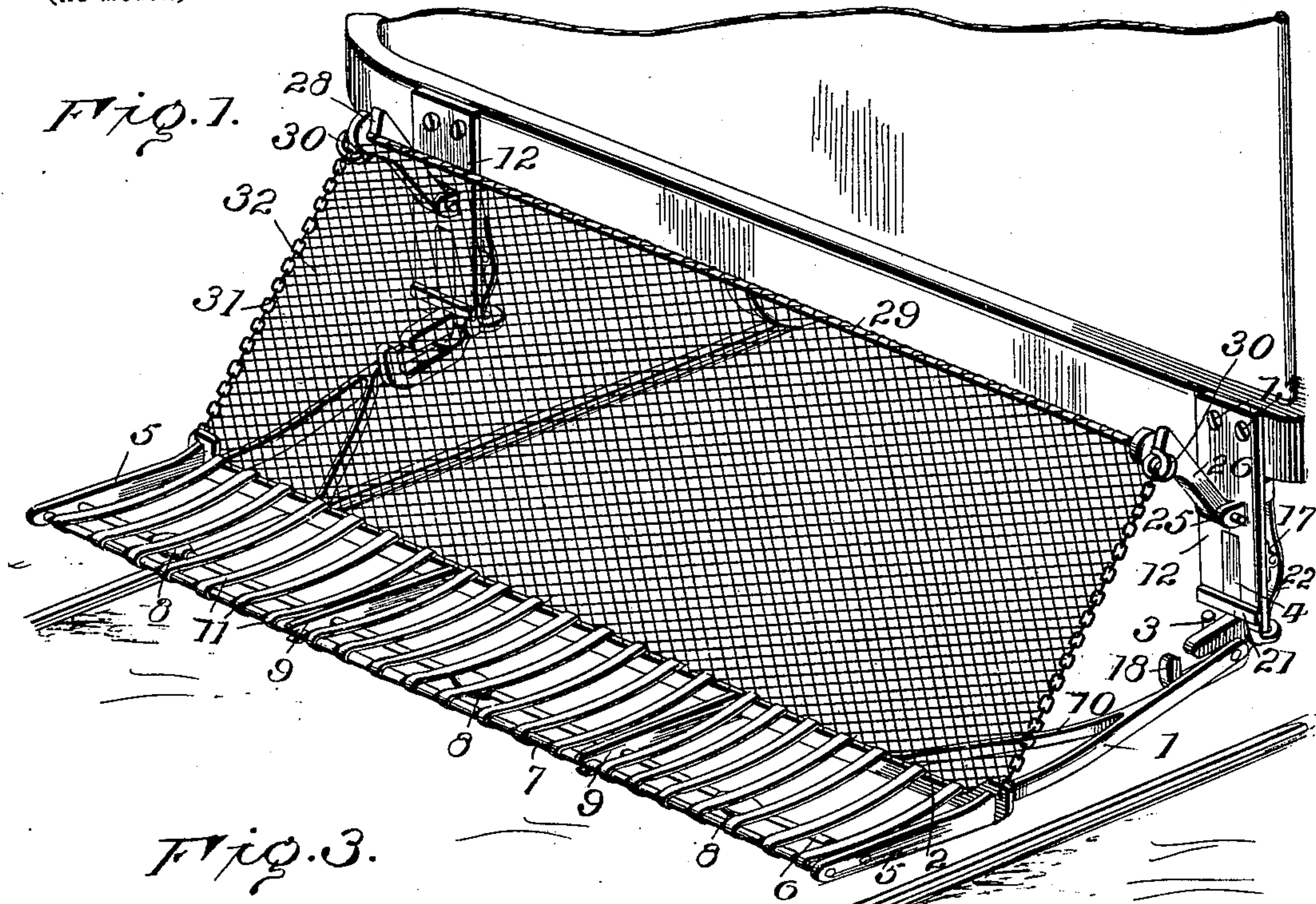
No. 678,974.

Patented July 23, 1901.

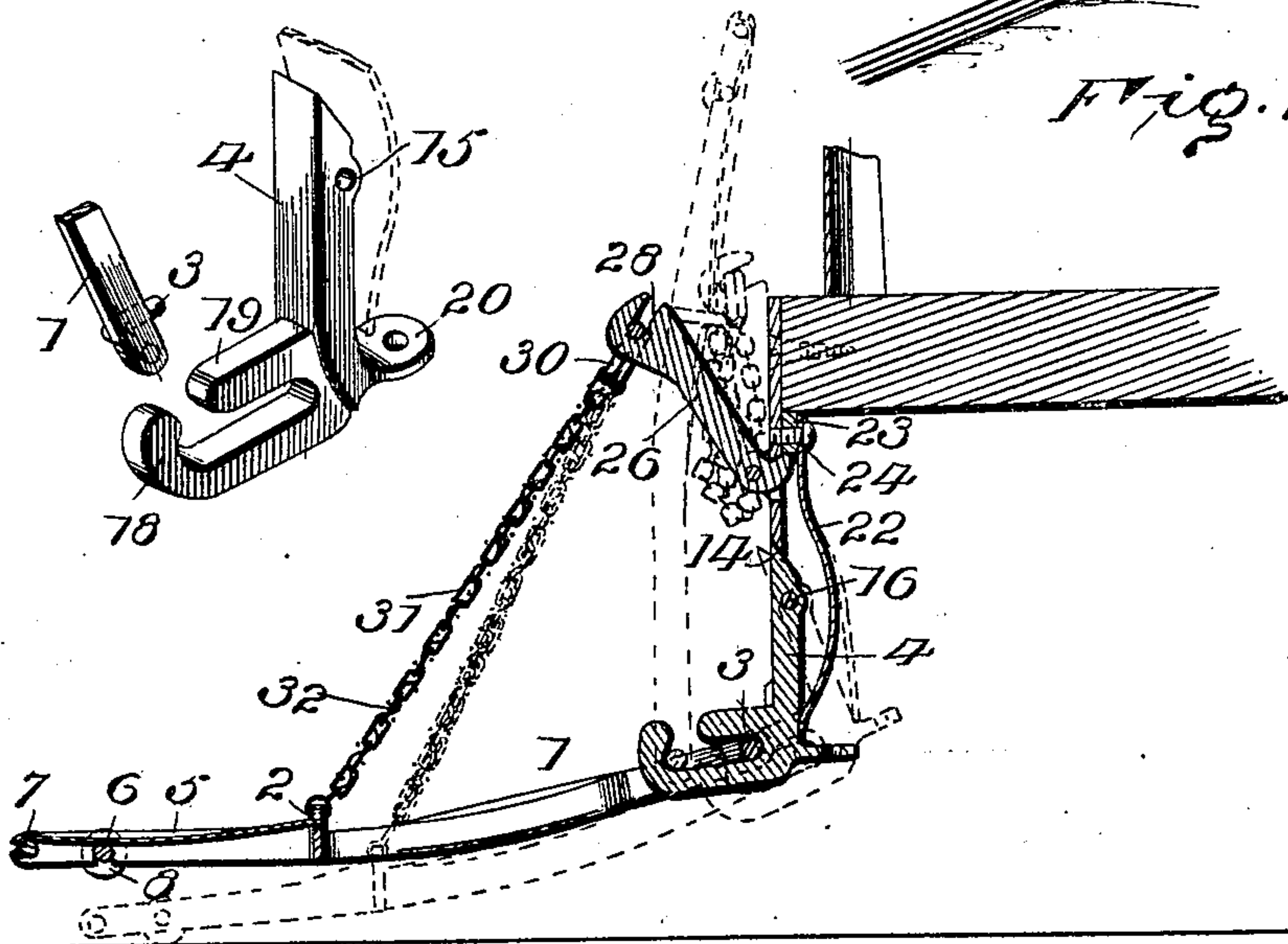
R. F. PREUSSER.  
CAR FENDER.

(Application filed Mar. 28, 1901.)

(No Model.)



*Fig. 3.*



*Fig. 2.*

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*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

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## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 678,974, dated July 23, 1901.

Application filed March 28, 1901. Serial No. 53,272. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD F. PREUSSER, a citizen of the United States, residing at Washington, in the District of Columbia, have  
5 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 apper-  
10 tains to make and use the same.

Generally stated, the principal object of the invention is to provide a car-fender which shall be light and simple of construction and capable of readily-detachable connection with  
15 cars of general construction, which shall be readily responsive to pressure to cause it to be projected into such relation to the road-bed as to pick up an object struck, and which  
20 when not in use may be folded back against the dashboard of a car, and thus be out of the way of the coupler.

Other objects and advantages will be hereinafter referred to.

The nature, characteristic features, and  
25 scope of the invention will be more readily understood by reference to the accompanying drawings, forming a part hereof, in which—

Figure 1 is a perspective view of a car-fender constructed in accordance with the present invention. Fig. 2 is a sectional view, the  
30 dotted lines showing the fender in its projected and folded positions, respectively. Figs. 3 and 4 illustrate details of the hangers.

The various parts of the drawings will be  
35 specifically pointed out and referred to by numerals, and having reference to the same it will be observed that the fender-frame is constructed of two arms or side pieces 1, rendered rigid by a cross-bar 2, connecting the  
40 outer portions of the arms. Each fender-arm is slightly inclined or curved and is provided at its rear with a crank-arm 3, adapted to bear and having a range of motion in the slotted hanger-arms 4, to be presently de-  
45 scribed. The cross-bar 2 is provided with two forwardly-projecting arms 5, constituting the sides of a scoop, these arms being connected and rendered rigid by cross-bars 6 and 7, of which the front bar 7 is by preference solid  
50 in order to present the greatest resistance to bending or buckling and the bar 6 by preference tubular for the sake of lightness and

to afford a bearing for rollers 8, which are adapted to contact with the road-bed when the fender is projected, and thus limit the  
55 downward course of same. In order that the front bar may be further braced against bending or buckling, as by contact with an obstruction, brace plates or bars 9 are provided. These brace-bars 9 also afford a necessary  
60 support to the bar 6. Obviously the forwardly-projecting arms 5 might be integral or coextensive with the fender-arms, and the latter are in the present instance provided with the angular brace-rods 10. The floor of  
65 the scoop is constructed, preferably, of a series of thin metallic strips 11, secured in any suitable manner to the cross-bars 2 and 7.

As a means for supporting the fender in position for operation two hangers 12 are em-  
70 ployed, these being bolted or secured in any appropriate manner to the car structure—for instance, as shown at 13. The hangers are each provided with a swinging or hinged member 4. The latter is received in a bifurcation  
75 14 and is provided with an opening 15 for the passage of a pintle 16, retained by straps 17. The hinged members 4 are served with a projecting tongue 18 and with an overhanging  
80 lug or extension 19, the two together defining a longitudinally-rangingslot, which is slightly inclined forward and constitutes an interlocking or coupling member for the fender-arms. The members 4 may be provided with  
85 the eye or lug 20 to facilitate connecting them with appropriate mechanism operated from the car or vehicle for projecting the fender.

As clearly shown in Figs. 2 and 3, the hinged or yielding member 4 is inclined at its upper extremity, and this inclined surface abuts  
90 against a correspondingly-inclined surface of the hanger, and thus limits the forward movement of said member 4. As a further means of limiting the movement of said hinged member and also to strengthen the hangers I provide the cross bar or plate 21. Said hinged  
95 or swinging member 4 is normally solicited against said plate 21 by a flat spring or its equivalent 22, which spring is secured upon the block 23 by a screw-bolt 24. It will thus  
100 be apparent that when pressure is applied to the scoop, as when an object is struck, the hinged members 4, inasmuch as they have a circumscribed arc of movement rearwardly,



will be cushioned upon the springs 22 and the force of the blow will be appreciably lessened.

Near the upper portion of each hanger is located a pair of lugs or bosses 25, between which is pivoted a bracket 26, each bracket at its lower end being provided with a toe or projection 27, which extends through a slot provided in the hanger for the purpose, so that the movement of the bracket is limited by contact of the toe with the block 23. The brackets are thus adapted to move in a circumscribed arc, their rearward movement being limited by contact with the face of the hangers and their forward movement by contact of the toe 27 with the stop 23. It is to be understood that I do not limit myself to the precise manner of mounting the brackets, as other arrangements may be employed without departing from the spirit of the invention.

The brackets 26 are provided with the obliquely-extending slots 28, which are adapted to loosely receive a cross-bar 29, the ends of which are coiled to constitute eyes 30, which serve to receive the chains 31, by which the fender is suspended. The net 32 may be made of any suitable material and is secured at all four sides, as shown. This arrangement of supporting the fender from the hangers presents points of advantage in the simplicity of its construction and also in the readiness with which the fender may be detached from the hanger when necessary.

The tendency of the fender-arms to force the members 4 rearward is neutralized by the opposing force of the springs, and under normal conditions there is practically no strain whatever upon said members 4 or the pivotal brackets. The point at which each fender-arm has its bearing is slightly in rear of or in the same vertical plane with the pivotal bearing of the respective brackets. This facilitates the folding back of the fender to the position shown in Fig. 2, and to still further facilitate this operation the slots of said members 4 are slightly inclined forward, as before stated, and when the fender is folded up the crank-arms 3 will abut against the upward extension of the tongue 18. To avoid any possibility of the fender-arms becoming displaced by jarring during speeding of the car or through any other contingency, the tongue 18 is bent slightly backward and the overhanging portion or lug 19 is inclined slightly forward.

It will thus be observed that I have produced a superior fender which, being unencumbered with bolts or hinges or the like fastening means, can be readily connected to or disconnected from a car.

It will be obvious to those skilled in the art to which the invention appertains that modifications may be made in detail without departing from the spirit and scope of the same. Hence I do not limit myself to the

precise construction and arrangement of parts hereinabove referred to and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a car-fender, of hangers provided with yieldingly-supported projections having forwardly-extending coupling members, fender-arms capable of readily-detachable connection with said coupling members, a cushion disposed in rear of and bearing against each projection, and suspension means for connecting the fender and hangers, substantially as described.

2. The combination with a car-fender, of hangers provided with slotted projections movable in respect thereto, fender-arms having readily-detachable connection with said slotted projections, cushions disposed in rear of and bearing against said projections, brackets pivotally connected with the hangers and having a circumscribed arc of movement, and suspension means for connecting the brackets and the fender, substantially as described.

3. The combination with a car-fender, of hangers provided with swinging projections having a circumscribed arc of movement rearward and whereof each is provided with forwardly-extending slotted members, the slots opening upward, fender-arms normally bearing against the rear of and having a range of motion in said slots, and suspension means connecting said hangers and fender, substantially as described.

4. The combination with a car-fender, of hangers provided with hinged projections whereof each is provided with forwardly-extending members having slots opening upward, fender-arms normally bearing against the rear of and having a range of motion in said slots, cushions disposed in rear of and bearing against said hinged projections, and suspension means connecting the fender and hangers, substantially as described.

5. The combination with a car-fender, of hangers provided with hinged projections movable rearwardly only and whereof each is provided with forwardly-extending members having slots opening upward, fender-arms having crank-pins afforded a range of motion in said slots, cushions disposed in rear of and bearing against said hinged projections, brackets pivotally connected with the hangers and having a circumscribed arc of movement, and suspension means for connecting the fender and brackets, substantially as described.

6. The combination with a car-fender, of fender-arms, hangers having cushioned yielding supports capable of readily-detachable connection with the fender-arms, brackets pivotally connected with the hangers and having inclined slots, a cross-bar borne in said slots and being coiled at each extremity to form an eye, and chains connecting the fen-



der with said cross-bar, substantially as described.

5 7. A fender comprising a scoop having cross-bars and transverse members connecting said bars, one of said cross-bars being located in the immediate rear of the front bar and carrying rollers designed to limit the downward movement of the fender, fender-supporting arms, hangers having cushioned  
10 yielding coupling members capable of readily-detachable connection with the fender-arms, brackets pivotally connected with the hangers, and chains connecting the brackets and fender, substantially as described.

15 8. A fender comprising a scoop having cross-bars and transverse members connecting said bars, one of said bars being located in the immediate rear of the front bar and carrying rollers designed to limit the downward movement of the fender, fender-supporting arms, angular braces for said arms, hangers having cushioned yielding coupling members capable of readily-detachable connection with the fender-arms, brackets pivotally connected with the hangers, chains connecting the brackets and fender, and a net  
20 disposed in inclined relation to the scoop, substantially as described.

9. The combination with a car-fender, of hangers provided with hinged projections 30 having forwardly-extending coupling members, fender-arms capable of readily-detachable connection with said coupling members, a spring disposed in rear of and bearing against each projection, brackets pivotally 35 connected with the hangers, and chains connecting the brackets and fender, substantially as described.

10. The combination with a car-fender, of hangers provided with hinged projections 40 having forwardly-extending coupling members, means for preventing a forward movement of said projections, fender-arms capable of readily-detachable connection with said coupling members, a spring disposed in rear 45 of and bearing against each projection, brackets pivotally connected with the hangers, and chains connecting the brackets and fender, substantially as described.

In testimony whereof I have hereunto 50 signed my name in the presence of two subscribing witnesses.

RICHARD F. PREUSSER.

Witnesses:

JAS. A. RICHMOND,  
W. A. WILLIAMS.