

No. 845,442.

PATENTED FEB. 26, 1907.

W. H. WALSH.  
AUTOMATIC CAR FENDER.  
APPLICATION FILED JULY 26, 1906.

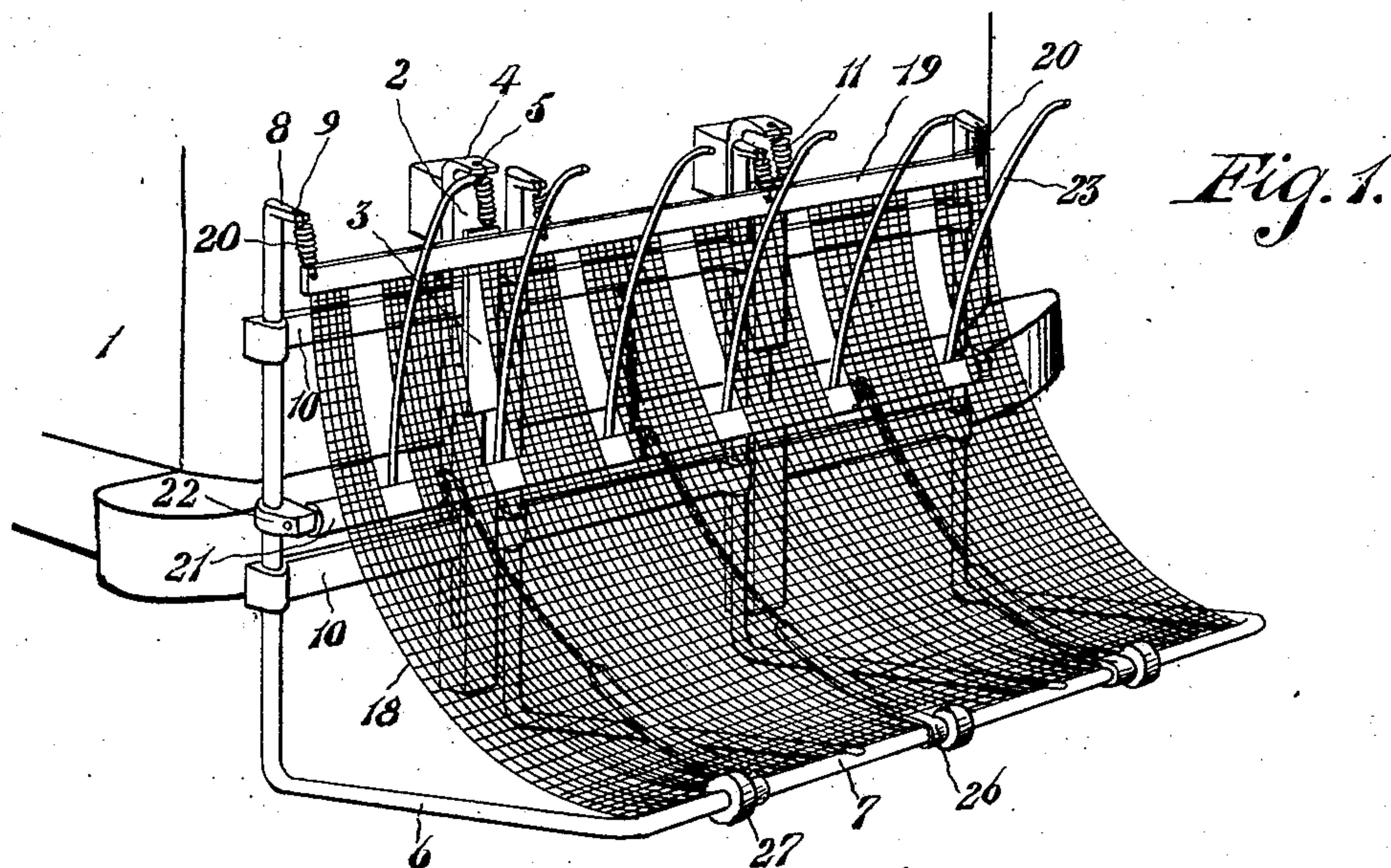


Fig. 1.

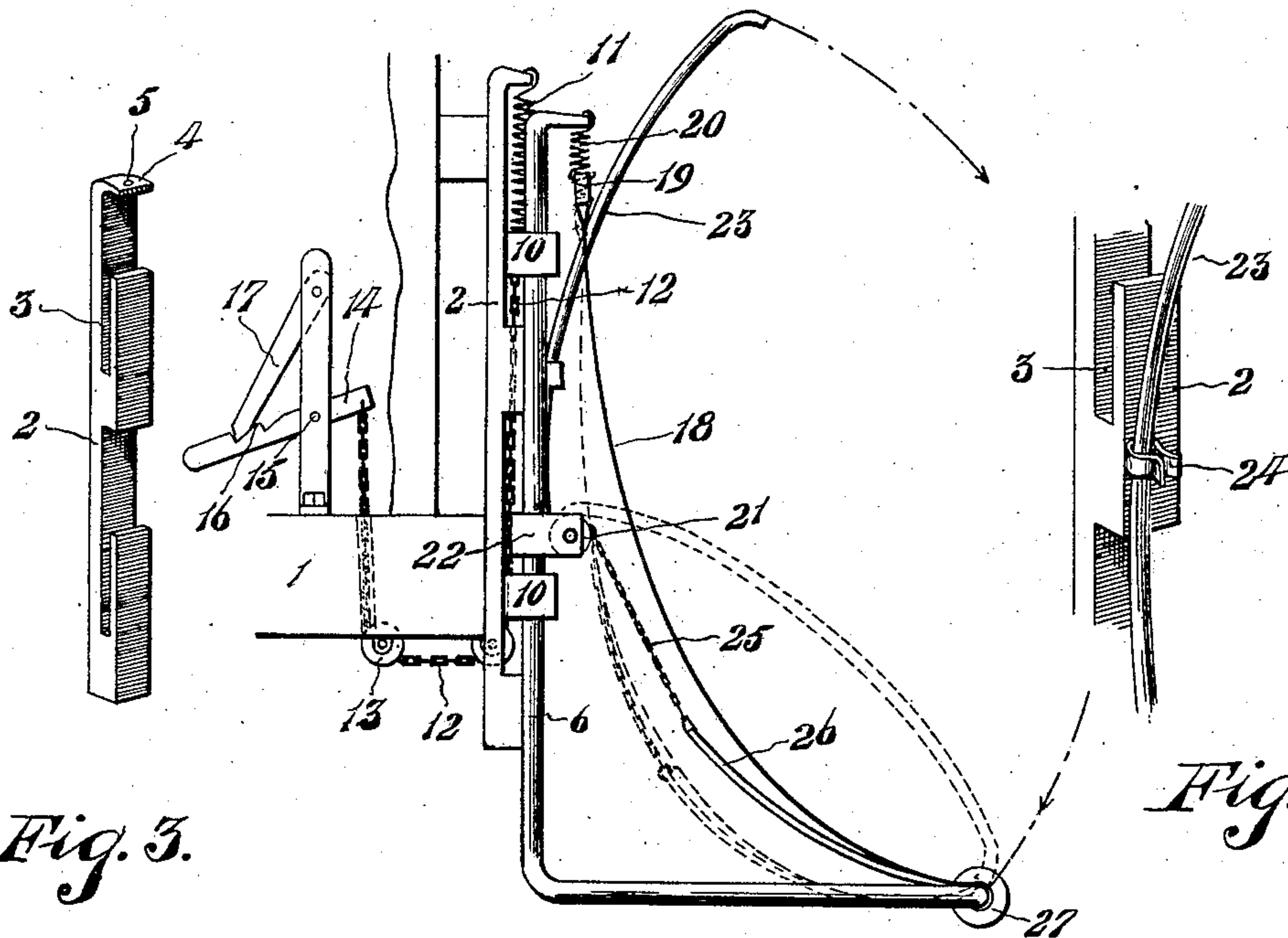


Fig. 3.

Fig. 2.

Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC CAR-FENDER.

No. 845,442.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed July 26, 1906. Serial No. 327,823.

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY WALSH, of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Automatic Car-Fenders, of which the following is a full, clear, and exact description.

My invention relates to automatic car-fenders, and is particularly adapted for use on street-railway cars.

One of the disadvantages of the fenders at present in use is that objects falling thereon are frequently thrown forward onto the track.

The main object of this invention is to provide a fender having means whereby any object falling thereon will be caught and held upon the fender.

A further object is to provide a fender which can be instantly lowered by the motorman without distracting his attention from the braking of the car and which will yield freely to the impact of a body striking thereon.

To accomplish these objects, I provide a spring-mounted L-shaped framework slidably attached to the front of the car. This framework carries a metallic netting fixed at the top to a transverse bar, which is attached to the framework by a plurality of springs. A revoluble transverse shaft is mounted behind the netting and carries a plurality of curved arms, which are normally held in elevated position. A number of spring members are pivotally mounted beneath the netting and cooperate with said shaft in such a manner that when an object falls on the netting the curved arms are caused to drop forward to hold the object upon the fender.

In the drawings which illustrate my invention, Figure 1 is a perspective view of the device attached to the front of a car. Fig. 2 is an enlarged side elevation and illustrates the action of the curved arms. Fig. 3 is a perspective view of the supporting members, which are rigidly attached to the car. Fig. 4 is a perspective view of the device for holding the arms in an elevated position.

Referring to the drawings, 1 designates a car having a pair of vertical members 2 fixed to the front thereof and provided with slides 3 and outwardly-turned upper extremities 4, each provided with an aperture 5. The framework of the device is composed of a plurality of L-shaped members 6, united at their forward extremities by a transverse bar 7

and outwardly turned at their upper extremities 8, which are each provided with an aperture 9. The vertical portions of the L-shaped members 6 are held rigidly by a pair of transverse bars 10, which are adapted to travel in the slides 3 of the members 2. The upper of the two bars 10 is provided with a pair of helical springs 11, which engage the apertures 5 in the extremities 4 of the members 2 and yieldably support the weight of the framework. The upper bar is further provided on its center with a chain or cable 12, which passes downwardly over a pulley 13 and then upwardly to a lever 14, located in a convenient position in the front of the car. On the opposite side of the fulcrum 15 the lever 14 is provided with ratchet-teeth 16, which are engaged by a gravity-pawl 17 to lock the lever in any desired position. By operating the free end of the lever 14 it will be readily seen that the motorman can raise or lower the fender at will. The metallic netting 18, preferably of heavy-wire mesh, is attached to the bar 7 and extends rearwardly and upwardly in a curve to the transverse bar 19, which is provided with a plurality of springs 20, passing through the apertures 9 to yieldably support the weight of the bar 19 and wire mesh 18. Immediately behind the wire mesh is a transverse shaft or roller 21, which is attached to two or more of the members 6 by means of brackets 22. The shaft 21 carries a series of curved arms 23, shaped approximately as shown in Figs. 1 and 2. The arms 23 are held in normally elevated position by means of the spring-clips 24, which are attached to the vertical members 2. A plurality of cords or chains 25 are wound around the shaft 21 and are attached at their opposite extremities to the spring-fingers 26, pivotally mounted on the member 7 and so positioned beneath the wire mesh 18 as to be almost in contact therewith. Attached to the bar 7 are a number of small wheels or rollers 27, upon which the fender may be supported when lowered to the level of the track. It will be obvious that the fender can be raised or lowered to any desired position.

The operation of the device is as follows: When an object is seen on the track, the fender is lowered, if necessary, by means of the lever 14. When the object falls on the fender, the wire-netting yields by reason of the springs 20 and in yielding depresses the fingers 26, which pull on the chains 25 and partially rotate the shaft 21, so that the arms 23



are withdrawn from the spring-clips 24 and drop to the fender, thus preventing any object upon the netting from rebounding or falling off. It will be readily seen that the heavier the weight on the netting the greater will be the downward pressure exerted by the arms 23. Not only the wire mesh yields to the impact of a falling body, but also the whole frame of the fender which is supported by the spring 11.

The advantages of this device are numerous and will be obvious to those familiar with street-car construction.

Having thus described my invention, so that the same may be readily understood by those skilled in the art to which it appertains, what I claim, and desire to secure by Letters Patent, is—

1. A device of the class described comprising a yieldable frame, means for vertically adjusting said frame, and a plurality of gravity-actuated gripping-arms adapted to retain an object upon said frame.

2. In a device of the class described, a yieldable frame, means for vertically adjusting said frame, and gravity-actuated means for retaining an object upon said frame.

3. In a device of the class described, an L-shaped frame, means for yieldably supporting said frame, means for vertically adjusting said frame, and gravity-actuated means for retaining an object upon said frame.

4. In a device of the class described, a spring-mounted L-shaped frame, a wire mesh covering said frame, and a plurality of gravity-actuated arms adapted to retain an object falling upon said mesh.

5. In a device of the class described, a spring-mounted L-shaped frame, means for

adjusting said frame, a spring-mounted netting covering said frame, and gravity-actuated means for retaining an object falling upon said netting.

6. In a device of the class described, an adjustable spring-mounted frame, a wire mesh covering said frame, a plurality of retaining-arms, means for holding said arms in elevated position, and weight-actuated means for lowering said retaining-arms.

7. In a device of the class described, a spring-mounted frame, means for adjusting said frame, a spring-mounted netting covering said frame, a plurality of retaining-arms, means for holding said arms in elevated position, and means for automatically lowering said retaining-arms.

8. In a device of the class described, an adjustable frame, a spring-mounted wire mesh covering said frame, a plurality of retaining-arms, means for holding said arms in an elevated position, and means actuated by a body falling upon said mesh for lowering said retaining-arms.

9. In a device of the class described, an L-shaped frame, a spring-mounted mesh covering said frame, a transverse shaft, a plurality of retaining-arms mounted on said shaft, means for holding said arms in an elevated position, and a plurality of members cooperating with said shaft to lower said retaining-arms.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM HENRY WALSH.

Witnesses:

C. W. TAYLOR,  
ALBERT GREEN.