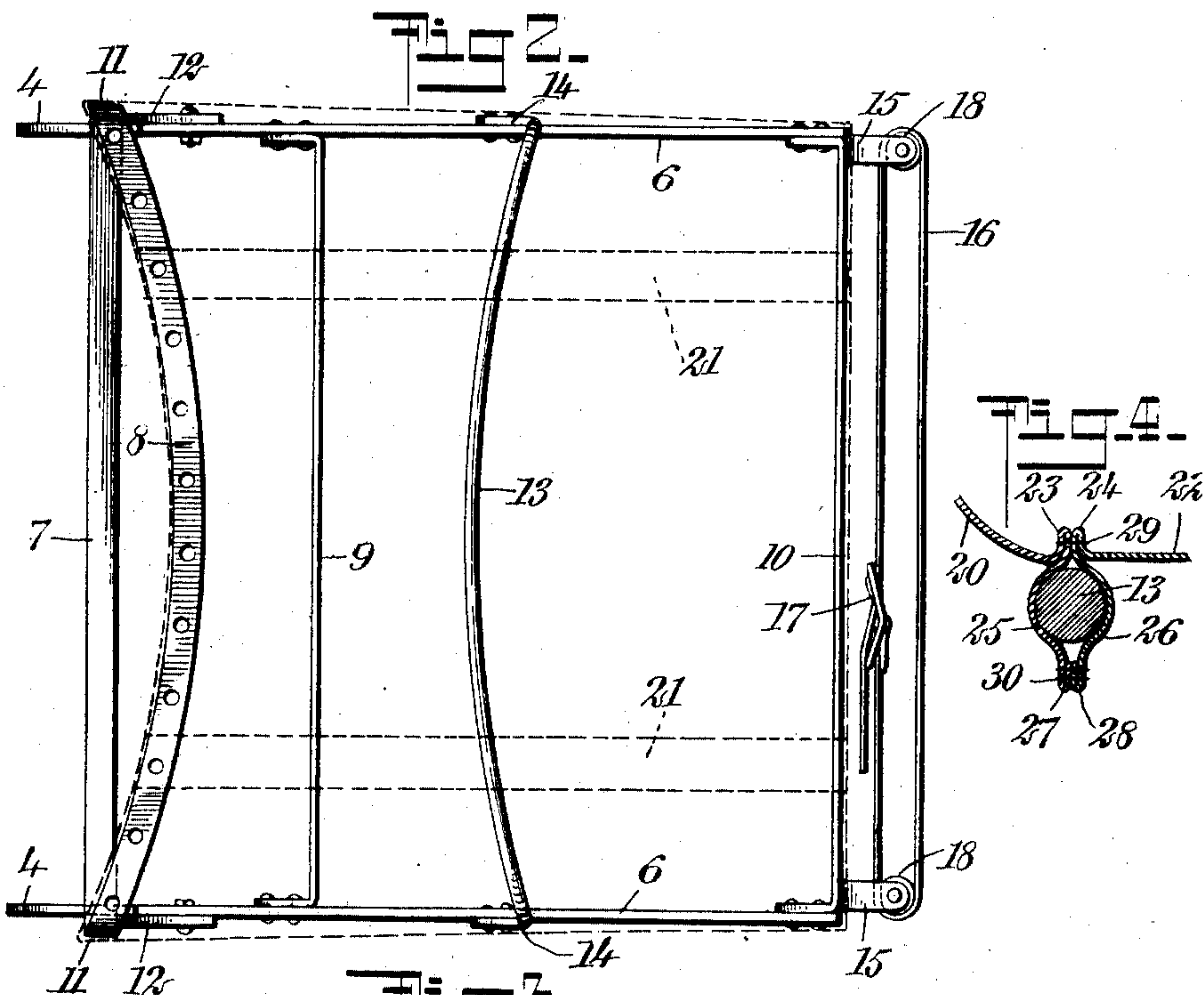
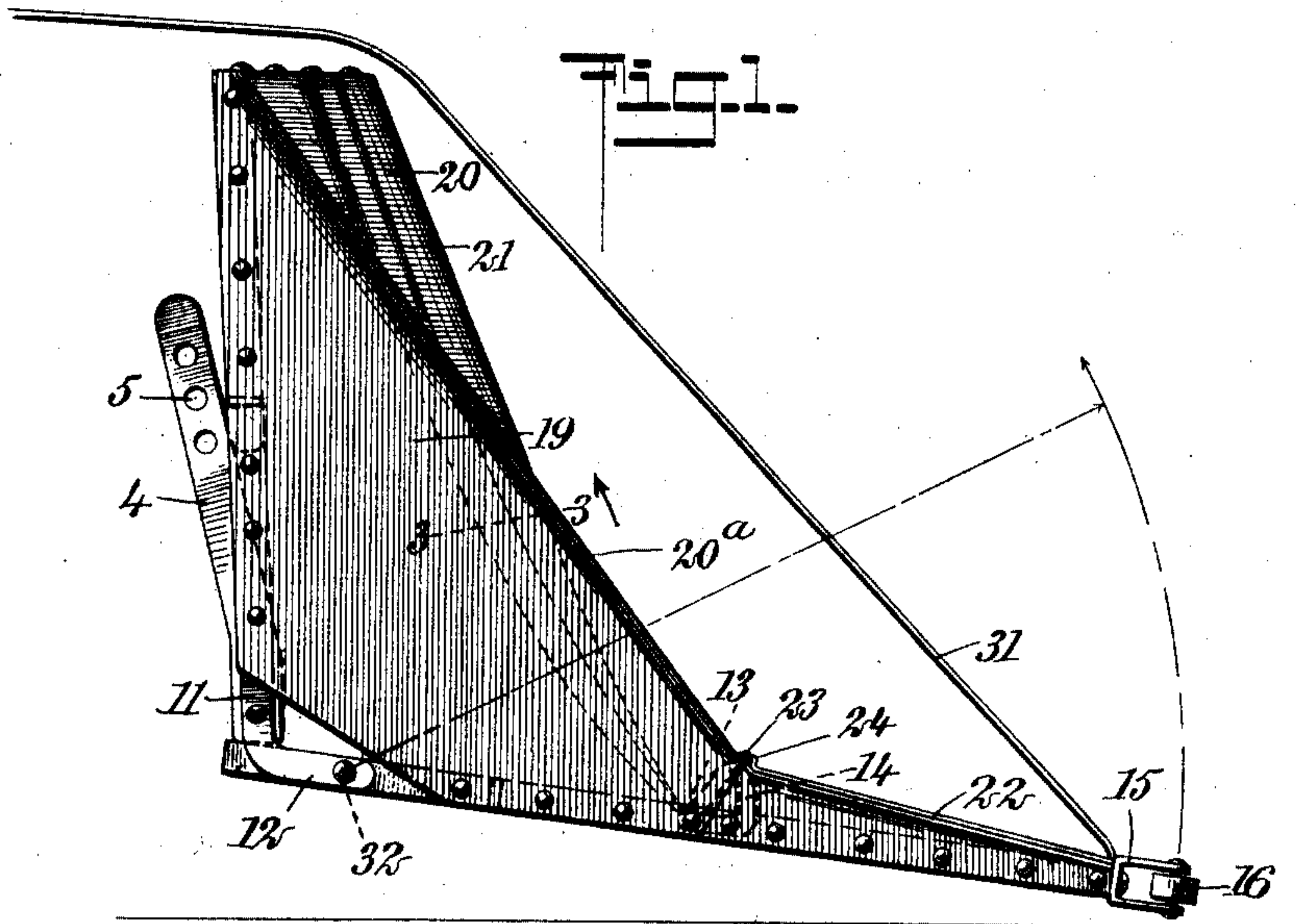


No. 864,647.

PATENTED AUG. 27, 1907.

S. ISHII.  
CAR FENDER.

APPLICATION FILED JAN. 30, 1907.



WITNESSES  
*H. G. Dietrich*  
Walton Harrison

INVENTOR  
*Shoraburo Ishii*  
BY *Mum & Co.*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

SHOZABURO ISHII, OF NEW YORK, N. Y.

## CAR-FENDER.

No. 864,647.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed January 30, 1907. Serial No. 354,852.

*To all whom it may concern:*

Be it known that I, SHOZABURO ISHII, a subject of the Mikado of Japan, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

My invention relates to car fenders, my more particular object being to produce a type of fender admitting of general use but of peculiar service in connection with street cars, and presenting a number of features whereby its efficiency, as a whole, is greatly improved.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improved fender showing the means whereby it is connected to a car, and also the means whereby it is raised and lowered at will; Fig. 2 is a plan view of the construction shown in Fig. 1, the canvas being removed for the purpose of exhibiting the metallic framework and other parts; Fig. 3 is an enlarged fragmentary section upon the line 3—3 of Fig. 1 looking in the direction of the arrow and showing the manner of strengthening the canvas by forming the same into seams; and Fig. 4 is an enlarged central section through the arcuate rod 13 showing how the canvas is secured directly to this rod.

Two flat bars 4 are provided with holes 5 whereby they may be secured upon the end of a car for the purpose of supporting the weight of the fender. Side bars 6 are connected together by a cross bar 7 and by a bar 8 of arcuate form. A stay-rod 9 extends directly from one of the side bars 6 to the other, and serves to brace the general construction. A pilot bar 10 connects together the front ends of the side bars 6. Mounted upon opposite sides are bars 11 provided at their bottoms with portions 12 bent outwardly, as indicated in Fig. 1. A rod 13, having a general arcuate form, extends directly across the fender and is provided with bent portions 14 serving as brackets and bolted directly to the side bars 6. Brackets 15, each of substantially U-shape, are mounted upon the pilot bar 10. A strap 16 of flexible material, preferably leather, is provided with a buckle 17 whereby its length may be altered at will. This strap encircles rollers 18 carried by the brackets 15, in such manner that the strap is free to move when a part of it is pulled in either direction, or when it happens to receive or give a glancing blow relatively to an obstacle.

Mounted upon the framework above described is a canvas web 19 connected to another canvas web 20 in

the manner indicated in Fig. 3. For this purpose one edge of the canvas web 19 is bent back upon itself, as at 19<sup>a</sup>, and one edge of the web 20 is bent back upon itself 55 as at 20<sup>a</sup>, and tucked under as at 20<sup>b</sup>. Stitches 19<sup>b</sup>, 20<sup>c</sup> are next applied as indicated in Fig. 3, so as to connect together the webs 19, 20. The web 20 is reinforced by a seam 21 made by doubling the web upon itself so as to make a three-ply fold, and securing this fold by 60 stitches 21<sup>a</sup>. This seam 21 renders the canvas exceedingly strong, as will be understood from Fig. 2. Another web 22 also of canvas is connected with web 20 in the manner indicated in Figs. 1 and 4. That is to say, the free edges of the webs 20, 22 are bent back at 23, 24, 65 so as to leave portions 25, 26. These are carried around the rod 13 and are bent back upon themselves at 27, 28. Stitches 29, 30 are next passed through the portions 23, 24, 27, 28, so as to secure the same permanently in position. This leaves the rod 13 ensheathed in a part of 70 the canvas so as to hold the same securely.

It will be noted that the seams 21 are parallel with the general direction of travel of the fender and are so positioned that, if an object be thrown upon them, their strength is so applied as to prevent tearing of the 75 canvas. It will also be noted that the position of the strap 16, relatively to the brackets 15, may be changed at will within a certain limit, so as to keep any desired portion of the strap toward the front.

At 31 is a hand-strap connected directly with the 80 pilot rod 10 and canvas mounted thereupon. By pulling upon the strap 31 the operator causes the side bars 6 and parts supported thereby to move directly upward, as indicated by dotted lines in Fig. 1. Pivots 32 connect together the side bars 6 and the portions 12 of the 85 bars 11. When the fender is not in use the front portion of it is simply raised by drawing upon the strap 31. The latter may be secured in any desired manner so as to support the fender in its elevated position.

Having thus described my invention, I claim as new 90 and desire to secure by Letters Patent:

1. In a car fender, the combination of a framework, brackets mounted upon opposite sides thereof, rollers mounted within said brackets and disposed in a plane crossing at a right angle the direction of travel of the fender, and a strap encircling said rollers. 95

2. In a fender, the combination of a frame and a canvas web mounted thereupon, said canvas web being folded back and forth upon itself and stitched so as to make a multiple fold for the purpose of increasing the strength of said canvas. 100

3. In a fender, the combination of side bars, a rod connecting the same together, webs connected with said side bars, said webs being stitched together upon opposite sides of said rod. 105

4. In a fender, the combination of a framework provided

with a rod extending directly thereacross, and a cloth member connected with said framework and having edges, said edges being stitched together upon opposite sides of said rod so as to form a tubular sheath encircling the same, so as to hold said cloth thereto.

5 In a fender, the combination of a pair of flat bars to be secured rigidly to a car, side bars pivotally mounted upon said flat bars, rods connecting said side bars together and constituting therewith a framework, a canvas  
10 mounted upon said framework, a strap for raising and

lowering said framework, brackets mounted upon said framework and provided with rollers, and a strap encircling said rollers.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 15

SHOZABURO ISHII.

Witnesses:

WALTON HARRISON,  
JNO. M. RITTER.