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PATENTED MAY 22, 1906.

H. EKREM.
CAR FENDER.

APPLICATION FILED OCT. 31, 1905.

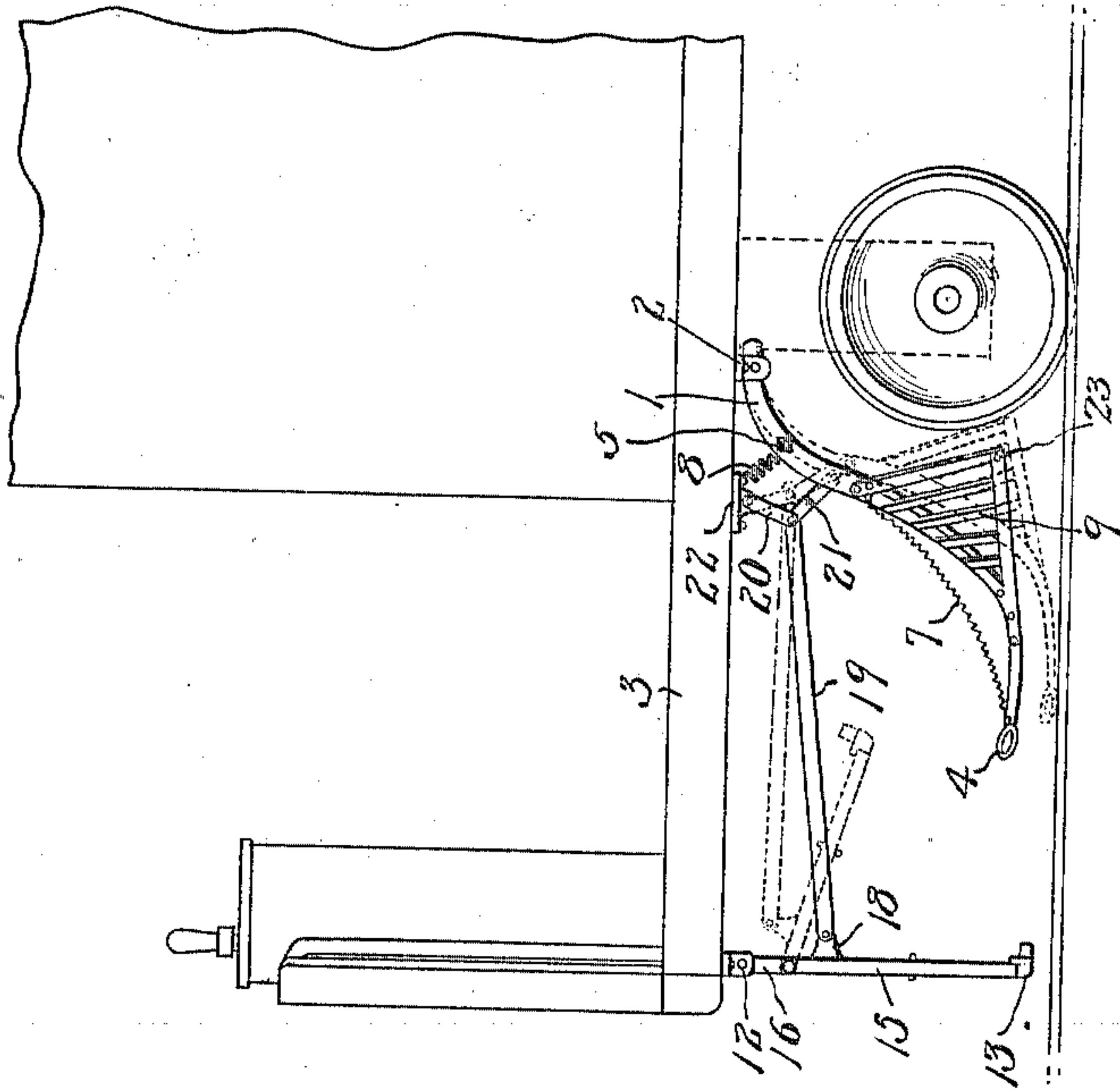


Fig. 2.

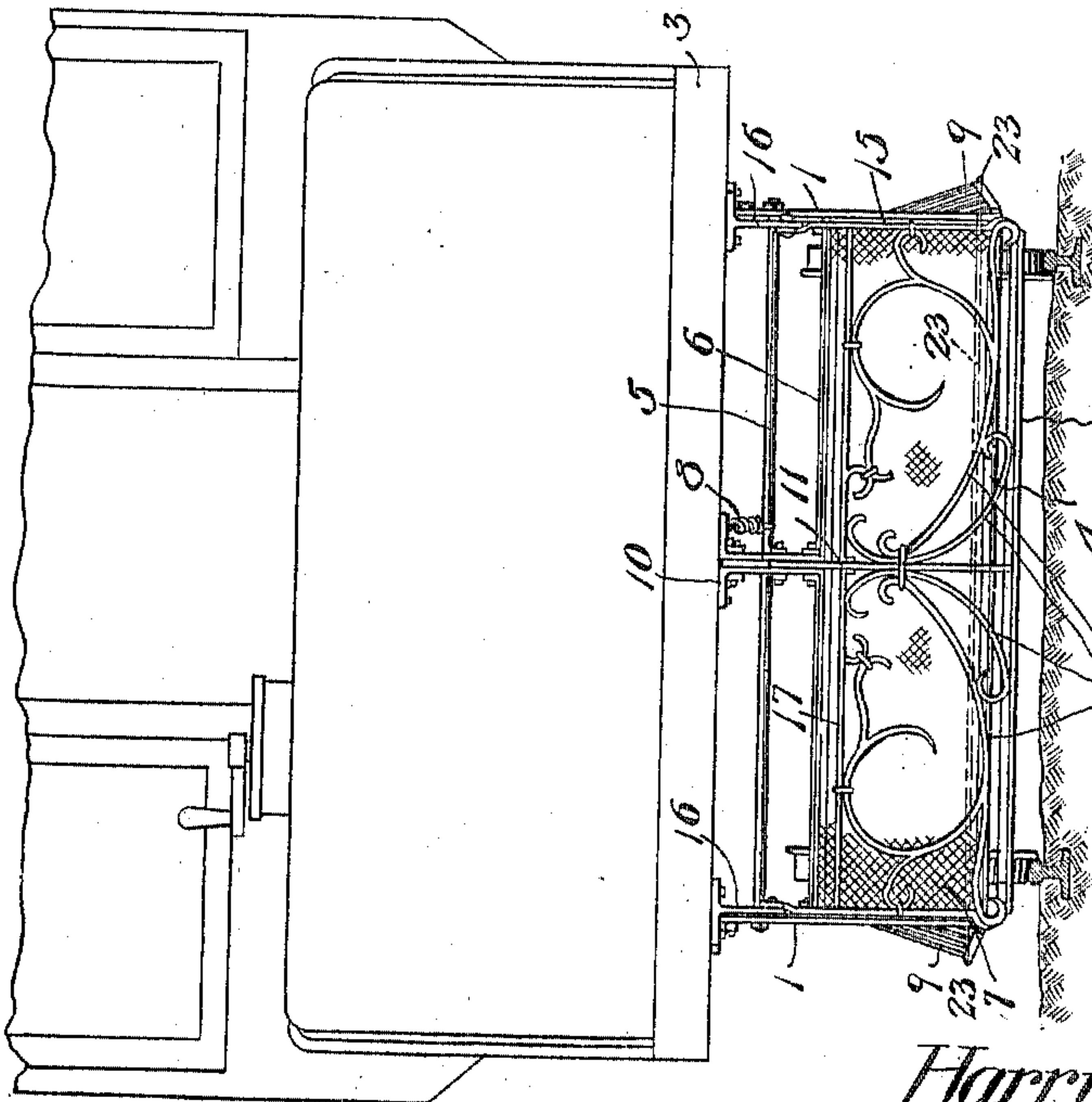


Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

HARRY EKREM, OF SAN PEDRO, CALIFORNIA.

CAR-FENDER.

No. 821,346.

Specification of Letters Patent.

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to all whom it may concern:

Be it known that I, HARRY EKREM, a citizen of the United States, residing at San Pedro, in the county of Los Angeles and State of California, have invented a new and useful Car-Fender, of which the following is a specification.

This invention relates to fenders for street-cars, and is designed to have the fender yieldably maintained in an elevated position, so as to clear ordinary obstructions upon the track and to provide for automatically dropping the fender, so as to drop the same into its lowered operative position. In connection with the dropping of the fender it is proposed to provide for positively forcing the same downwardly, thereby to prevent hanging of the fender before the latter reaches its lowermost position.

A still further object of the invention is to materially simplify the construction and mounting of the device, and thereby to insure the prompt and effective operation thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a front elevation of a fender embodying the features of the present invention. Fig. 2 is a slight modification thereof.

Like characters of reference designate corresponding parts in both of the figures of the drawings.

The frame of the present invention includes opposite side arms 1, each of which is pivotally hung from a bracket 2, secured to the under body of the car 3. The lower ends of the side bars are connected by a cross-bar 4, which is preferably sheathed with some yieldable material—such, for instance, as rubber. A cross-rod 5 connects the side elements adjacent their upper ends, and slightly below the cross-rod there is an angle-bar 6, which also connects the same. Between the angle-bar and the shoe 4 there extends a netting 7, preferably of the character commonly employed as woven-wire mattresses. A helical spring 8 has one end connected to the

cross-rod 5 and its other end connected to the under body of the car, so as to support the fender in an elevated position and clear obstructions upon the track. At each side of the fender there is a wheel-guard 9 of slats or open-work which is carried by the adjacent side arm of the fender-frame and inclined downwardly and rearwardly therefrom, so as to deflect from the wheel such objects as may strike the side of the fender.

As hereinbefore indicated, it is proposed to automatically depress the fender, which is carried out in the following manner: A suitable bracket 10 is provided upon the under side of the front platform of the car, and from this bracket there is hung a trip consisting of an upright bar or lever 11, which is pivotally hung from the bracket 10, as shown at 12, there being a cross-bar 13 carried by the lower end of the bar 11 and of a length to extend entirely across the track. Suitable braces 14, preferably scrolled so as to be ornamental in character, extend between the cross-bar 14 and the arm 11. If desired, side arms may be employed at the ends of the cross-bar 13 with their upper ends pivotally hung from brackets 16, secured to the under side of the platform of the car. Also a cross-bar 17 may be employed between the arms 16 and 11. The said arms 15 and the cross-bar 17 are not absolutely necessary, but may be employed, if it is deemed desirable, to give the desired strength to the trip. Upon the rear side of the arm 11 there is an ear or knuckle 18, upon which a connecting-bar 19 is pivotally supported, said bar running rearwardly and having its rear end connected to the pivotal connection between a pair of toggle-links 20 and 21, the upper link pivotally connected to a bracket 22, carried by the under body of the car, while the other link is pivotally connected to the angle-bar 6.

In the normal position of the fender, as indicated by full lines in Fig. 2 of the drawings, it will be seen that the trip hangs vertical with its lower end in close proximity to the track, while the fender is held in an elevated position by the spring 8, so as to clear obstructions upon the track. When the trip strikes a person, said trip is swung rearwardly and upwardly to the dotted-line position in Fig. 2, whereby the connecting-rod 19 will be forced rearwardly, and the toggle-links 20 and 21 will be straightened out into alignment, and thereby force the fender downwardly to its operative position, which is

shown by dotted lines, thereby to take up the person in the fender before the car-wheel can strike the same. So long as the weight of the person remains upon the fender the latter will be held in its depressed position; but as soon as the person is removed from the fender the spring 8 will elevate the fender, and thereby spring the trip downwardly and forwardly into its normal upright position. It will here be explained that the trip swings to a height to clear the person and not obstruct the fender.

From the foregoing description it will be understood that the trip is positively connected to the fender, and therefore positively forces the latter downwardly into its operative position, thereby effectually preventing an imperfect lowering of the fender.

The rear corners of the guards 9 are connected by a brace-rod 23, so as to prevent collapsing of either guard when struck. It will here be explained that when the fender is dropped down to its operative position the guards 9 lie close to the track, so as to prevent any object from passing beneath the guards.

Having thus described the invention, what is claimed is—

1. The combination with a fender which is yieldably supported in an elevated position,

of a trip member located in front of the fender and having a toggle connection therewith to positively depress the fender when the trip is moved rearwardly.

2. In a car-fender, the combination of a normally elevated pivotally-supported fender, a toggle connection between the fender and the car, a swinging trip located in front of the fender, and a connection between the trip and the toggle to straighten out the latter to depress the fender.

3. In a car-fender, the combination of a pivotally-supported fender comprising a frame having a cross-bar, a spring connected to the fender for yieldably supporting the same in an elevated position, toggle-links extending between the cross-bar and the car, a swinging trip disposed in front of the fender, and a connecting-rod extending between the trip and the toggle-links to straighten out the latter when the trip is swung rearwardly and thereby depress the fender.

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

HARRY EKREM.

Witnesses:

E. B. SCOTT,
LOUIS ENTNA.