



J. RAKOUSKY.  
CAR FENDER.  
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2 SHEETS—SHEET 2.

Fig. 2.

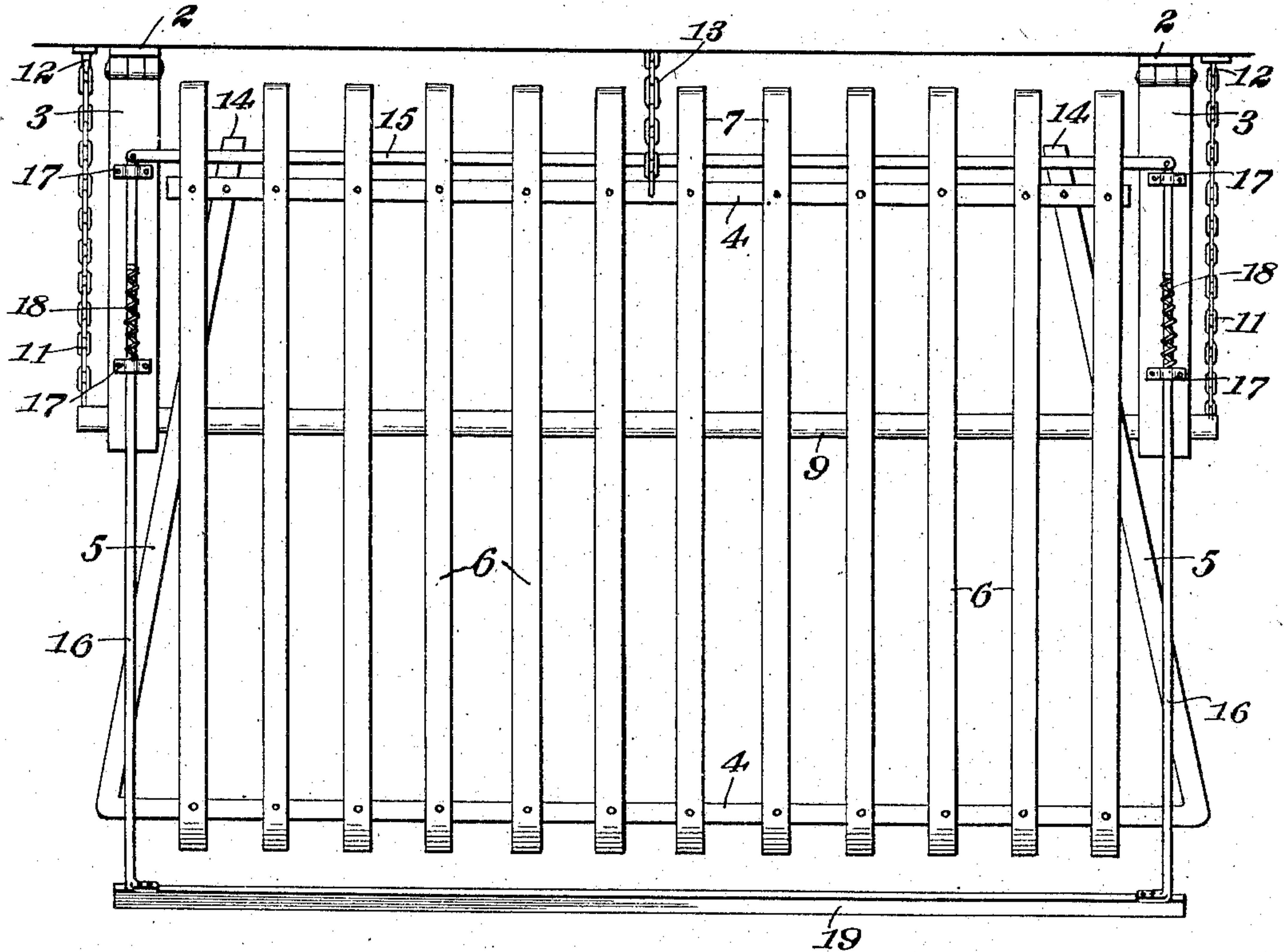
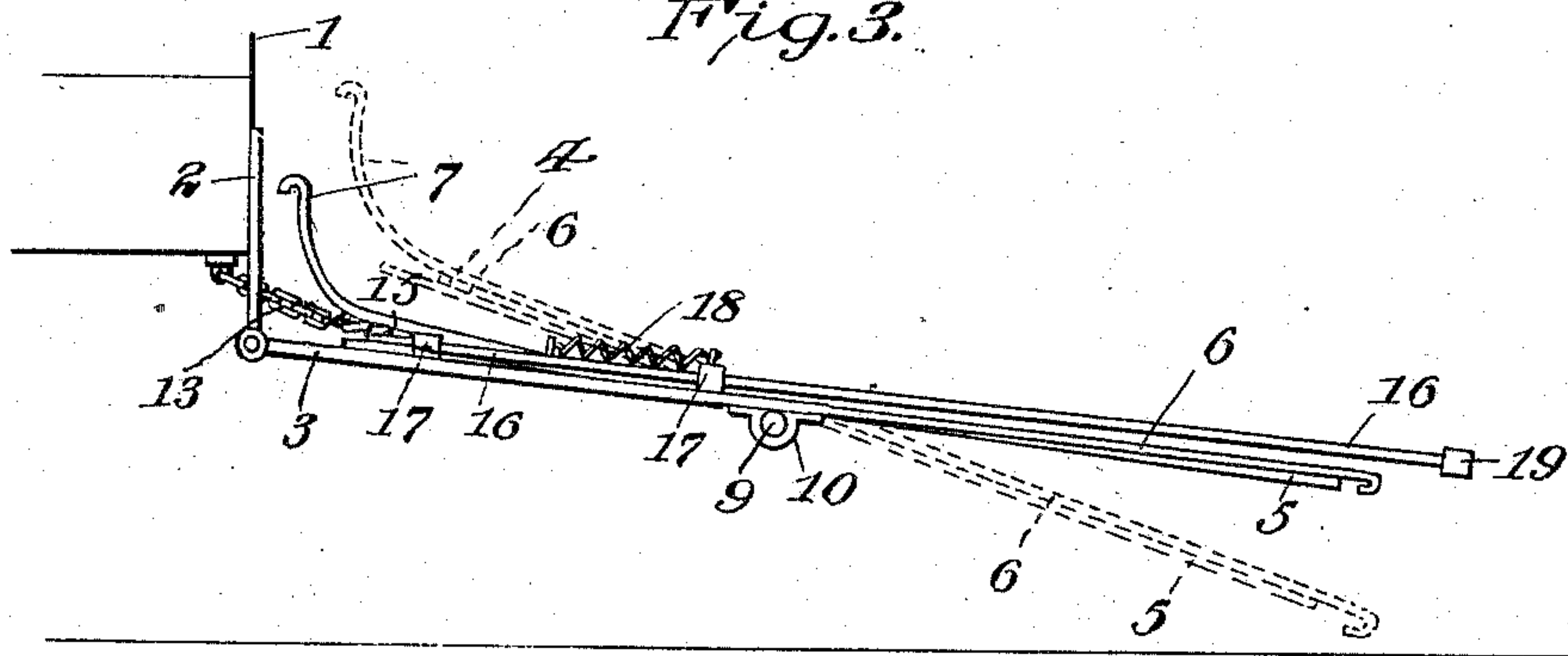


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

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CAR-FENDER.

947,260.

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*To all whom it may concern:*

Be it known that I, JOSEPH RAKOUSKY, citizen of Austria, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

This invention comprehends certain new and useful improvements in fenders for use on cars or other vehicles, and the invention has for its object an improved device of this character consisting essentially of a tilting fender frame which is normally maintained in raised position and is susceptible of being released in a peculiar manner by and upon impact with an object upon the track, so as to admit of the frame swinging downwardly into closer proximity to the track to preclude possibility of passing over the object struck, the fender being also arranged for yielding contact with the object, in order to reduce to a minimum the liability of injuring the same.

With this and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view illustrating the application of my improved car fender; Fig. 2 is a top plan view thereof; and, Fig. 3 is a side elevation, the frame being shown in dotted lines in tipped position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

My improved fender is illustrated as applied to the front platform 1 of a car of conventional form. Bolted or otherwise rigidly secured to the front of the car in transversely spaced relation are two brackets 2 to which are pivotally connected longitudinally and forwardly disposed hanger arms 3, the latter being adapted to support the fender frame interposed therebetween. This

fender frame comprises front and rear parallel cross bars 4 which are connected by rearwardly convergent side bars 5, a plurality of longitudinal strips 6 being preferably applied to the frame and having their forward ends curved downwardly about the front cross bar 4, while their rear ends are upturned beyond the rear cross bar, as indicated at 7 and constitute an abutment to hold an object deposited upon the frame against rearward movement. In the present instance, this fender frame is designed to be mounted to turn about an intermediate transverse axis, and for this purpose I equip each of the side bars 5 at corresponding intermediate points with bearings 8 in which is journaled a transverse shaft 9 that is supported at its ends in bearings 10 provided at the extremities of the hanger arms 3. Two controlling chains 11 are secured to the opposite ends of this shaft and are arranged for adjustable engagement with hooks 12 or the like disposed upon the front of the car, thereby admitting of the swinging hanger arms 3 being supported in different positions to regulate the height of the fender frame above the track. Attention is also particularly directed to the fact that the shaft 9 is connected to the fender frame nearer the rear end thereof, so that the frame normally tends to tip by gravity to admit of the forward portion thereof swinging downwardly in closer proximity to the track to preclude possibility of the car passing over the object. The rear portion of the frame, of course, swings upwardly upon this tipping movement thereof, and such movement is preferably limited through the instrumentality of a stop chain 13 connected to the rear cross bar 4 and an adjacent portion of the front of the car.

At the rear end of the fender frame the same is preferably provided with one or more outstanding ears or lugs 14, that, in the present instance, are constituted by the projecting extremities of the side bars 5 and that are designed to be normally engaged by a keeper bar 15 in order to maintain the frame with its forward portion raised and against the aforementioned tipping movement. The keeper bar 15 is disposed transversely just at the rear of the frame and has its opposite ends connected to two longitudinally extending connecting rods 16,



which are mounted in bearings 17 provided on the hanger arms 3 and which are normally slid forwardly in the bearings under the influence of tension springs 18 in order to maintain the keeper bar in engagement with the lugs. At their forward ends the connecting rods project beyond the hanger arms and extend across the respective forward corners of the frame and terminate beyond the same with a transverse buffer 19 rigidly secured thereto, the buffer being thus supported in front of the other parts of the fender in order to impact with an object in event of a collision. The buffer, connecting rods and keeper bar constitute a substantially rectangular trip frame which serves to control the movement of the fender frame.

In the practical use of a fender constructed in accordance with my invention, when the car encounters a person or other obstruction upon the track, the buffer 19 is impacted therewith, it being noted however, that the force of the blow is not likely to be dangerous, inasmuch as the buffer is susceptible of yielding rearwardly. This rearward movement slides the connecting rods 16 through the bearings 17 and against the tension springs 18, so as to effect the disengagement of the keeper bar 15 from the outstanding lugs 14. After the keeper bar has been moved out of such engagement, it is to be observed that the rearward movement of the same together with the connecting rods and the buffer, is limited by the keeper bar abutting against the brackets 2. Upon the release of the fender frame the latter tips by gravity, so as to turn about the shaft 9 to lower the forward portion of the frame into closer proximity to the track to prevent the object from being rolled beneath the wheels, while the rear portion of the frame is swung upwardly as much as is permitted by the stop chain 13. When the continued forward movement of the car causes the person to topple over upon the fender, the majority of the weight is deposited upon the rear portion of the fender frame, which is thereby swung downwardly, so as to break the force of the fall and also turn the frame about the shaft in a reverse direction to raise the forward portion above the track. This movement of the fender frame in the reverse direction is limited by the connecting rods 16 which extend over the forward corners thereof, as hereinbefore mentioned.

From the foregoing description in connection with the accompanying drawings, it will be apparent that I have provided an improved fender which may be advantageously employed upon street railway cars or other vehicles; which is entirely automatic in action and is adapted to be positively lowered to prevent passing over an object struck; which is arranged for yielding contact with an obstruction, and which possesses certain

other advantages that will become at once apparent to those familiar with devices of this character.

Having thus described the invention what is claimed as new is:

1. In a fender, the combination of adjustable hanger arms, a swinging frame pivotally connected to the hanger arms, means carried by the hanger arms for engaging the frame to hold the same against swinging movement, and means for releasing said engaging means. 70
2. In a fender, the combination of brackets, hanger arms pivotally connected to the brackets, a swinging fender frame pivotally connected to the hanger arms, means for sustaining the hanger arms in different adjusted positions, and means carried by the hanger arms for engaging the frame to hold the same against swinging movement. 80
3. In a fender, the combination of hanger arms, a swinging frame pivotally connected to the hanger arms, a keeper bar carried by the hanger arms and engaging with the frame to hold the same against swinging movement, and means for releasing the keeper bar. 85
4. In a fender, the combination of hanger arms, a swinging fender frame pivotally connected to the hanger arms, and a trip frame carried by the hanger arms and normally engaging the fender frame to hold the same against swinging movement. 90
5. In a fender, the combination of hanger arms, a swinging fender frame pivotally connected to the hanger arms, and a trip frame normally engaging one end portion of the fender frame to hold the same against swinging movement in one direction, the trip frame extending over the opposite end portion of the fender frame to limit the swinging movement thereof in the other direction. 95
6. In a fender, the combination of hanger arms, a swinging frame pivotally connected to the hanger arms, the frame being provided with a projection, and a keeper bar carried by the hanger arms and adapted to engage the projection to hold the frame against such swinging movement. 100
7. In a fender, the combination of hanger arms, a swinging frame pivotally connected to the hanger arms, and a keeper bar carried by the hanger arms and spring-pressed into engagement with the frame to hold the same against swinging movement. 105
8. In a fender, the combination of hanger arms, a swinging frame pivotally connected to the hanger arms, a keeper bar carried by the hanger arms and spring-pressed into engagement with the frame to hold the same against such swinging movement, and means for releasing the keeper bar. 110
9. In a fender, the combination of hanger arms, a swinging frame pivotally connected 115



to the hanger arms, a keeper bar carried by the hanger arms and spring-pressed into engagement with the frame to hold the same against such swinging movement, and a bumper for moving the keeper bar against the force of the spring and out of engagement with the frame.

10. In a fender, the combination of hanger arms, a frame pivotally connected to the hanger arms, a keeper bar disposed transversely of the hanger arms at the rear end of the frame and adapted to engage the same, connecting rods slidingly mounted on the respective hanger arms and secured to the keeper bar, and a bumper secured to the forward ends of the connecting rods and disposed beyond the front end of the frame.

11. In a fender, the combination of lon-

gitudinal hanger arms provided with bearings, longitudinally extending rods slidably mounted in the bearings and spring-pressed forwardly therein, a frame interposed between and pivotally connected to the hanger arms, means disposed at the rear ends of the rods for engaging the frame to hold the same against turning movement, and means arranged at the forward ends of the rods for moving the same against the force of the springs to release said holding means.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH RAKOUSKY.

Witnesses:

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