

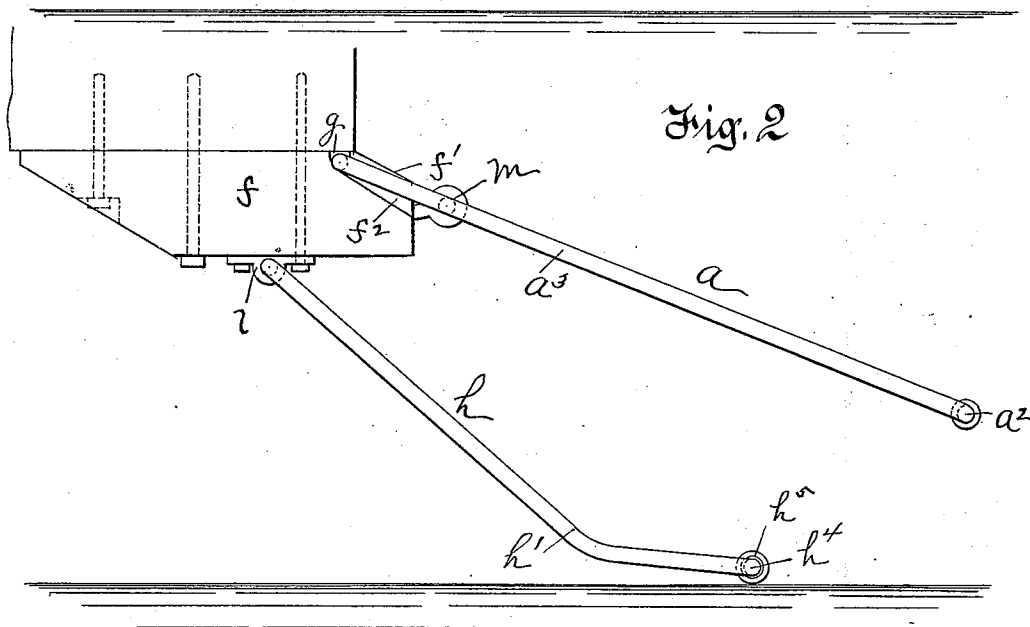
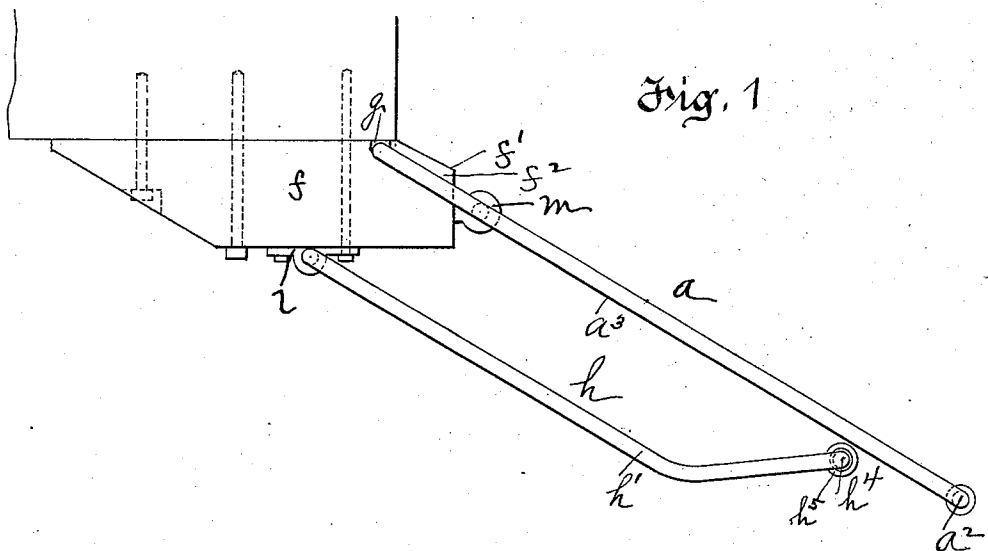
(No Model.)

2 Sheets—Sheet 1.

R. C. McGUIRE.
FENDER FOR CARS.

No. 553,591.

Patented Jan. 28, 1896.



Witnesses
L. de B. Little
Robert. C. Totten

Inventor
Robert C. McGuire
By Kay & Totten
Attorneys

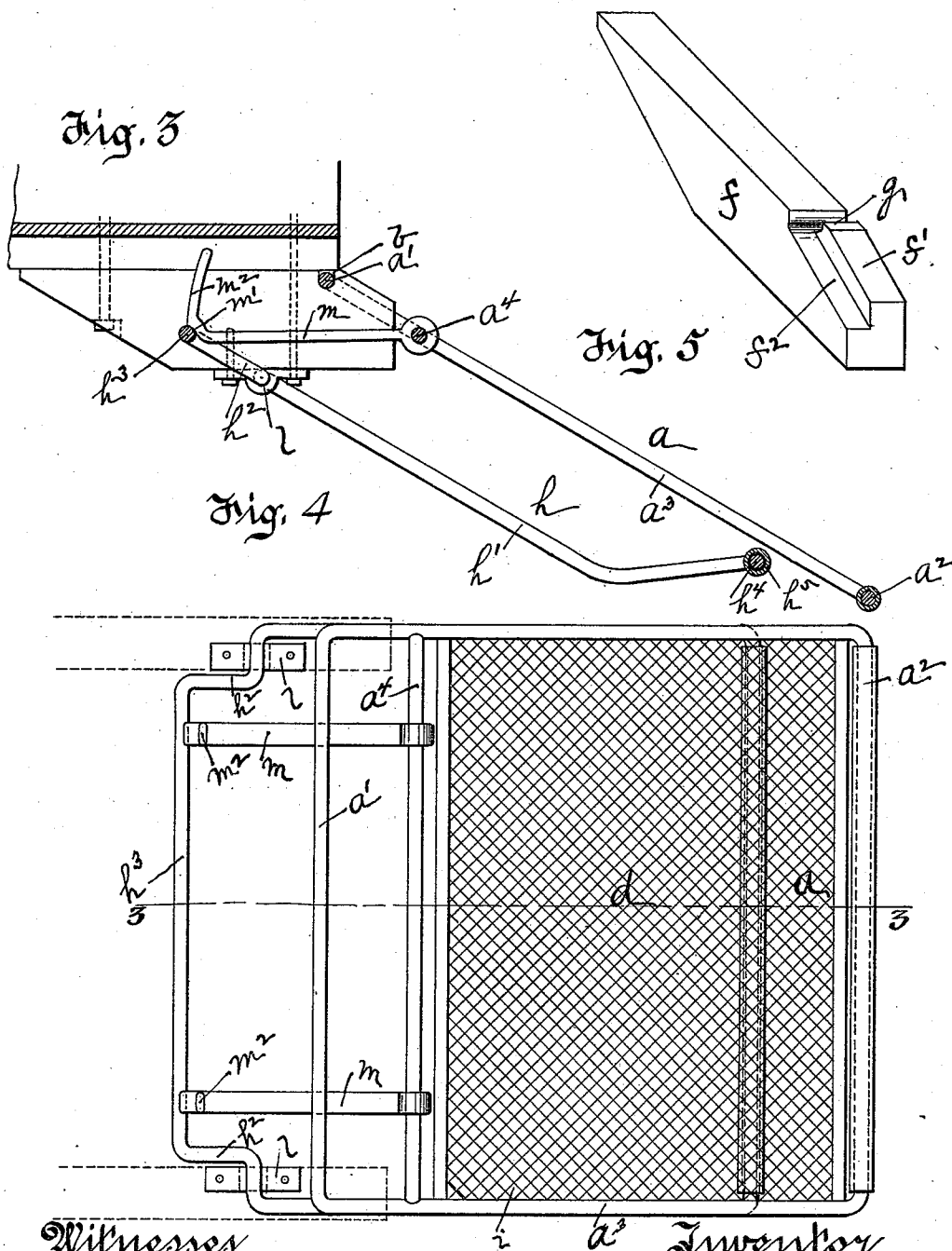
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UNITED STATES PATENT OFFICE.

ROBERT C. MCGUIRE, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO HARRY S. BRICKELL AND THOMAS F. KIRK, JR., OF SAME PLACE.

FENDER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 553,591, dated January 28, 1896.

Application filed August 28, 1894. Serial No. 521,492. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. MCGUIRE, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Fenders for Cars; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to fenders or guards for street-railway cars, its object being to provide a quick-acting device which will prevent the body of a person struck thereby from getting beneath the trucks.

My invention comprises, generally stated, an outer swinging fender projecting in front of the car at an incline and approximately the width of said car, adapted to travel at a suitable distance from the track, and an inner swinging fender below said outer fender, and connections between said fenders whereby when said outer fender is raised the inner fender is lowered to the track to prevent the object encountered from getting under the trucks.

To enable others skilled in the art to make and use my invention I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view of the front portion of a car with my fender applied thereto, and showing the fender in its normal position. Fig. 2 is a like view showing the fender in operation. Fig. 3 is a section on the line 3-3, Fig. 4. Fig. 4 is a plan view. Fig. 5 is a view of one of the supporting-brackets.

Like letters indicate like parts in each.

The frame of the outer fender, *a*, may be constructed of wrought-iron or galvanized pipe, and said pipe is preferably incased in rubber or other suitable cushioning material to prevent bruising of the person struck thereby. The fender *a* is also provided with the netting *d*.

The manner of attaching the fender *a* to the body of the car *c* may vary according to the style of car. In the car illustrated the rear cross-bar, *a'*, of the fender *a* is journaled in a suitable support *b* on the bottom of the car, at about the middle thereof. The ends of said cross-bar *a'* are journaled in suitable bearings *c* on the car-body.

In order to support the fender *a* at the desired angle, so that the front cross-bar, *a'*, will be at the proper distance from the track, I employ the brackets *f*. These brackets are bolted to the body of the car and have the downwardly-inclined faces *f'*, upon which the upper ends of the side bars *a''* of said fender *a* rest. The inclined faces *f'* have the grooves *f''* formed therein to receive the upper ends of the side bars *a''*, said grooves acting to steady said fender and prevent lateral movement of same. Furthermore said brackets *f* have the grooves *g*, within which the ends of the cross-bar *a'* rest.

In the rear of and below the outer fender, *a*, is the inner fender, *h*, which may be constructed of the same material as the fender *a*, but said inner fender, *h*, is formed with the side bars *h'* slightly bent, so that when the netting *i* is attached to the fender and said fender is lowered onto the netting. The outer fender, *a*, may also be of the same shape as the inner fender, *h*, if it is found desirable. The inner fender, *h*, is formed with the cranks *h''*, and said fender is journaled in suitable bearings *l* on the car-body. The ends of the cranks *h''* are connected by the rear cross-bar, *h''*, which acts as a "rocking shaft," and it will be so termed throughout the specification. The front cross-bar, *h''*, is provided with the idle-roller *h'''*, formed of rubber or other suitable material.

On the cross-bar *a'* of the outer fender, *a*, are the rearwardly-projecting rods *m*, which engage the rocking shaft *h''* of the inner fender, *h*. As said rods *m* act to hold said fender *h* in its elevated position until the outer fender, *a*, is raised, said rods have the recesses *m'* formed at the inner ends thereof. When the fender *h* is in its elevated position the rocking shaft *h''* fits in said recesses *m'* on the rods *m*. The recesses *m'* support the fender *h* in its elevated position, but said recesses are of such a depth as to permit of the release of said rocking shaft *h''* upon a slight upward movement on the part of said outer fender, *a*. The inner ends of said rods *m* are provided with the fingers *m''*, said fingers being upwardly and forwardly inclined, so that when the outer fender, *a*, is being lowered to its normal position the said fingers *m''*, moving in

contact with the rocking shaft h^3 , will act to gradually elevate the inner fender, h , and bring the rocking shaft h^3 into engagement with the recesses m , whereupon said fender h is held in its elevated position.

When my improved fender is in use its normal position will be such as shown in Figs. 1 and 2. If in this position it comes in contact with the erect body of a person, ordinarily the body will fall back onto the netting of the outer fender, a . In case, however, the body be thrown forward the front cross-bar, a^2 , moving in contact therewith, will be elevated. This elevation of the front cross-bar, a^2 , will throw down the inner ends of the rods m and release the rocking shaft h^3 of the inner fender, h , from engagement with the recesses m' . The weight of the fender h itself will cause the same to drop until the roller h^5 travels in contact with the surface of the track. In this manner the body, passing beneath the outer fender, a , is immediately received onto the inner fender, h , and is prevented from getting beneath the truck. When it is desired to bring the fender again to its normal position the outer fender, a , is forced down, whereupon the rods m will be raised and the fingers m^2 , acting on the rocking shaft h^3 , will raise the fender h .

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a car of an outer swinging fender, an inner swinging fender, rearwardly extending rods on said outer fender, said rods having upwardly and forwardly inclined fingers at the inner ends thereof, and a rocking-shaft at the rear of said inner fender, said fingers moving in contact with said rocking-shaft when said outer fender is raised or lowered, substantially as and for the purposes set forth.

2. The combination with a car, of an outer swinging fender, an inner swinging fender, rearwardly extending rods on said outer fender, said rods having upwardly and forwardly inclined fingers and recesses at the inner ends thereof, and a rocking-shaft at the rear of said inner fender, said fingers moving in contact with said rocking-shaft when said outer fender is raised or lowered, substantially as and for the purposes set forth.

In testimony whereof I, the said ROBERT C. MCGUIRE, have hereunto set my hand.

ROBERT C. MCGUIRE.

Witnesses:

ROBT. D. TOTTEN,
ROBERT C. TOTTEN.