

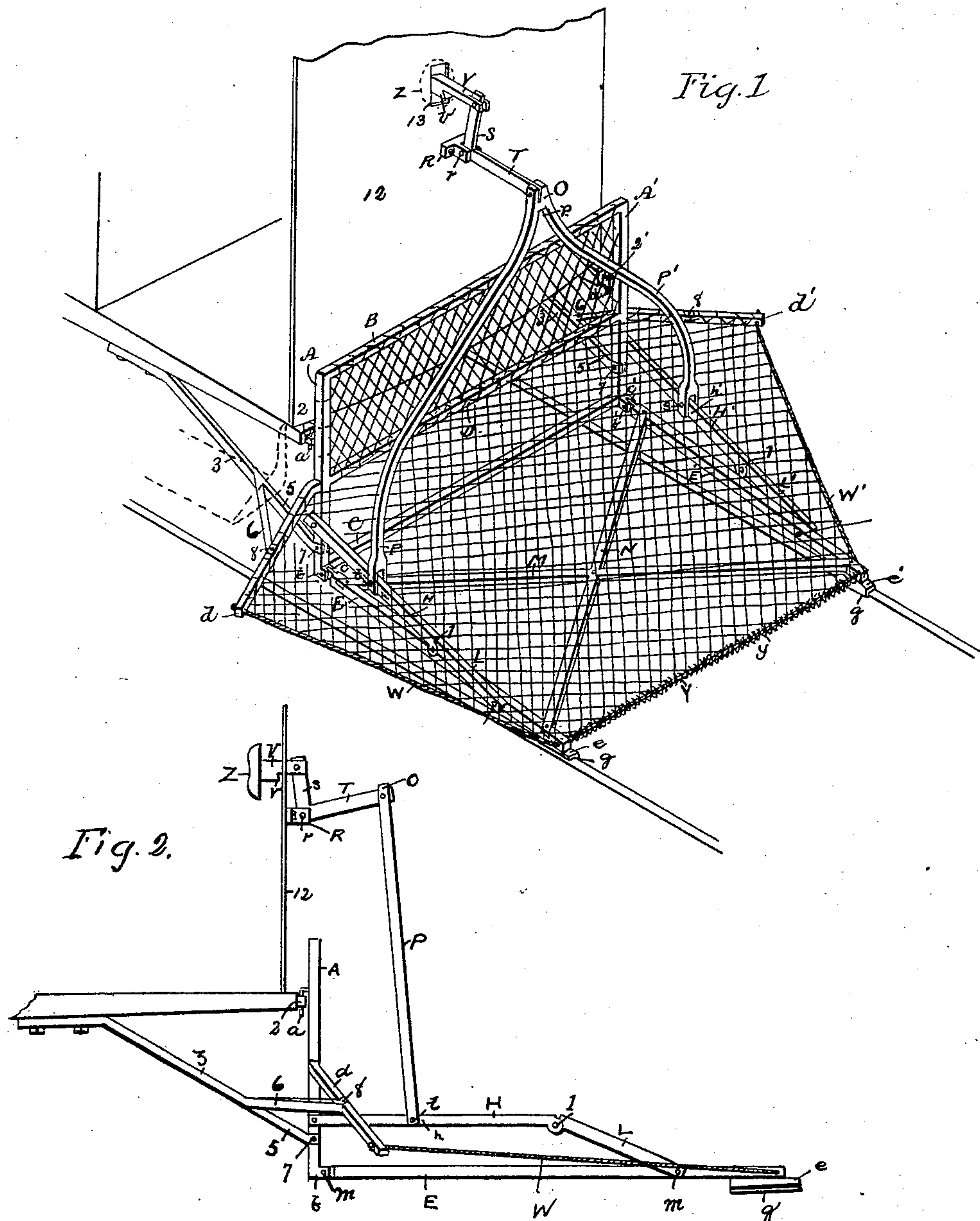
(No Model.)

2 Sheets—Sheet 1.

W. A. PECK.  
CAR FENDER.

No. 539,440.

Patented May 21, 1895.



Witnesses:  
Chas. B. Shumway  
Paul S. Robinson

Inventor  
Wilbur A. Peck,  
by Robinson & Fisher  
his attorneys.

(No Model.)

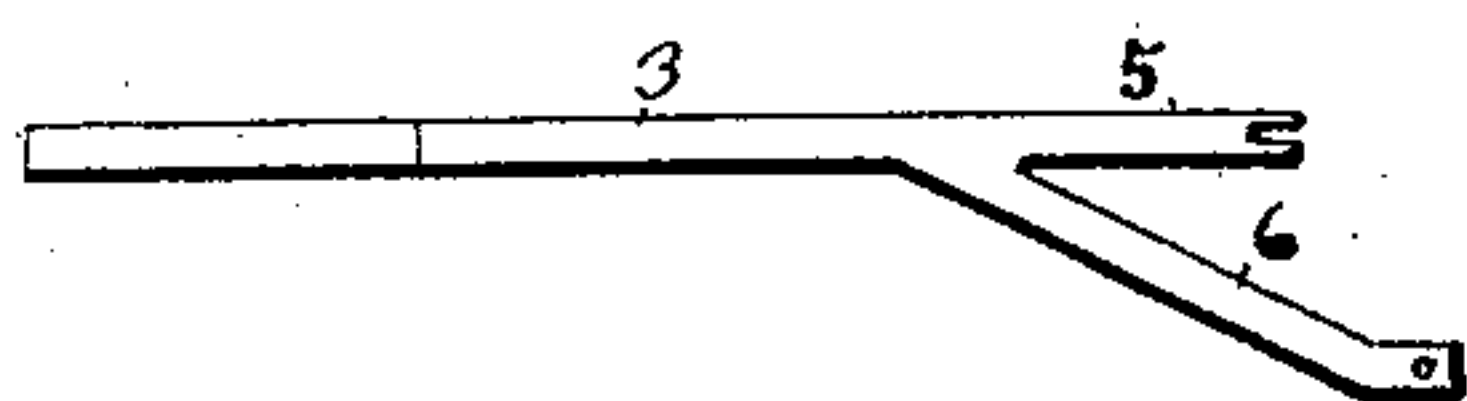
2 Sheets—Sheet 2.

W. A. PECK.  
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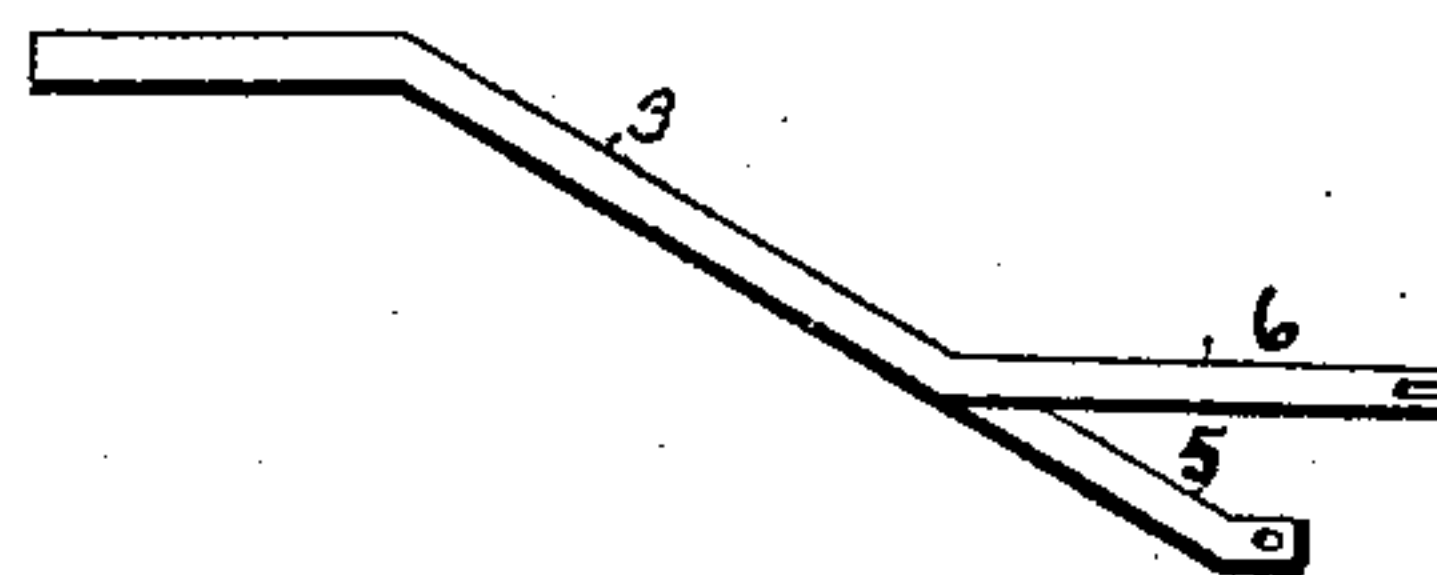
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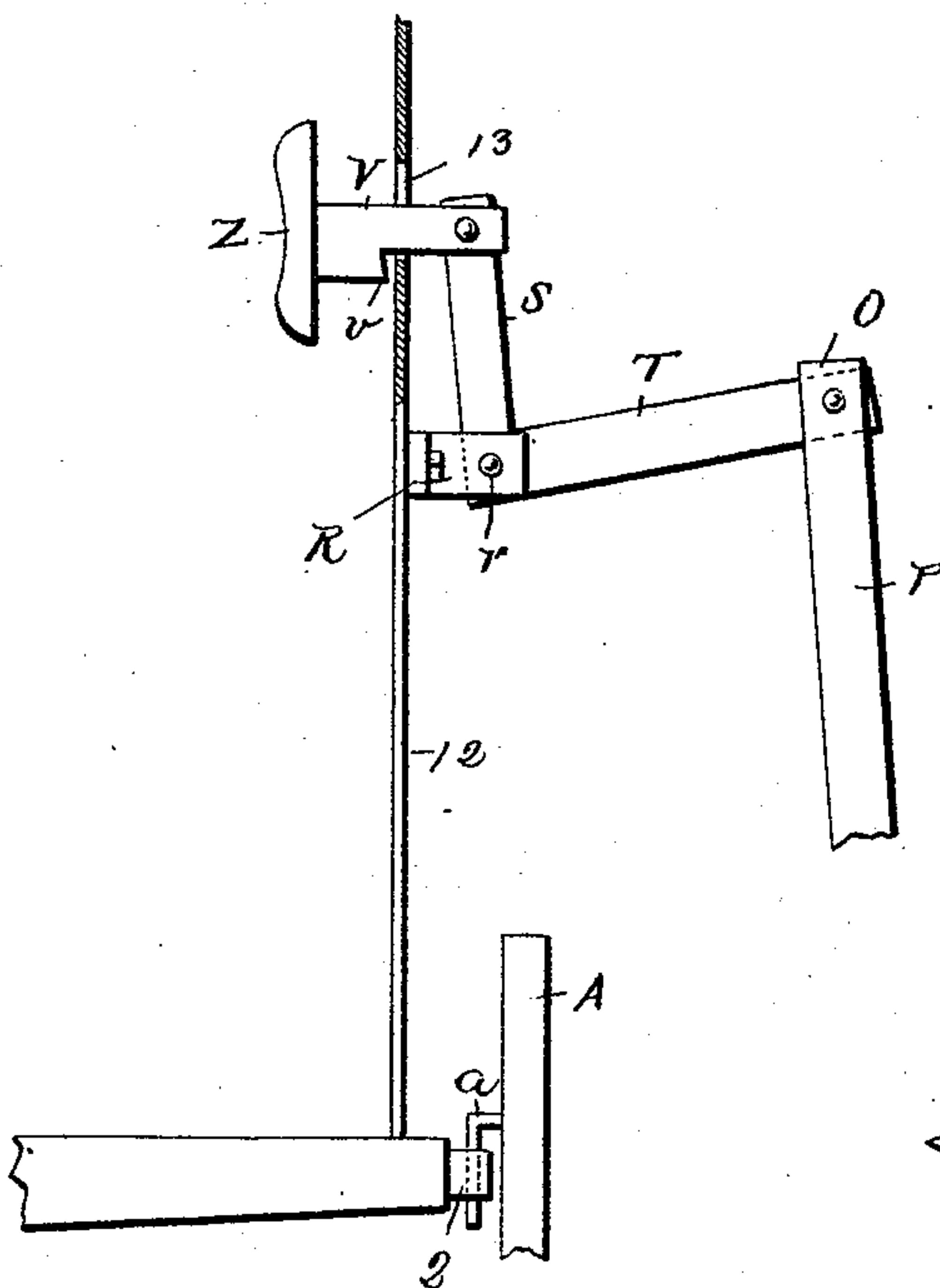
*Fig. 3*



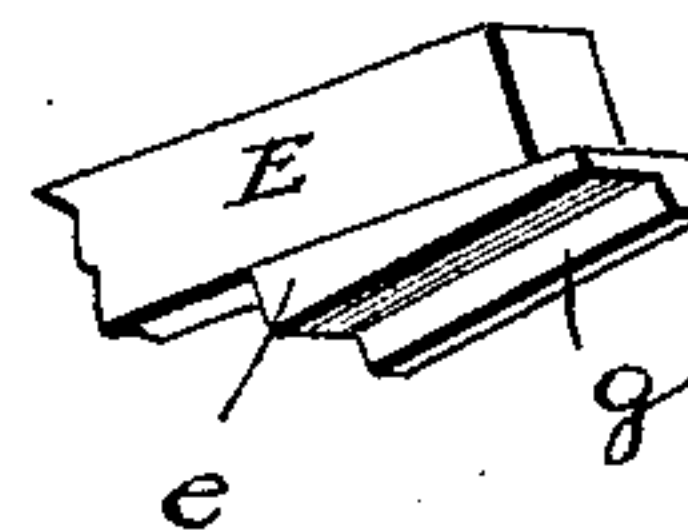
*Fig. 4.*



*Fig. 5.*



*Fig. 6*



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# UNITED STATES PATENT OFFICE.

WILBUR A. PECK, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF  
TO STEPHEN R. RAYNES, OF SAME PLACE.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 539,440, dated May 21, 1895.

Application filed January 29, 1895. Serial No. 536,563. (No model.)

*To all whom it may concern:*

Be it known that I, WILBUR A. PECK, a citizen of the United States, and a resident of the city of New Haven, county of New Haven, State of Connecticut, have invented a new and useful Improvement in Car-Fenders, which is fully set forth in the following specification, taken together with the drawings, which form a part thereof, and in which like letters and numerals of reference represent like parts in all the figures.

Figure 1 is a perspective view of my fender connected to the car and set. Fig. 2 is a side elevation of the device in its ordinary position. Fig. 3 is a plan of the braces on the car-body. Fig. 4 is a side elevation of the same. Fig. 5 is a detail view of the mechanism for setting the net. Fig. 6 is a detail view of the shoe attachment.

This invention relates to fenders, or life guards, to be attached to electric street cars or like vehicles, to protect against a body being drawn under the cars and mangled by the wheels and other mechanism.

The object of this invention is to make a fender, simple in construction, which may be easily and readily removed from the car to which it is attached, and which may obviate the necessity of having two fenders to each car.

The fender consists of a framework of iron or steel bars, overspread by a network of rope, wire or other suitable material. The framework is secured to the car by means of pins and braces shown hereinafter. Two vertical bars, A and A', have lugs, a and a', which fit into eyes or staples, 2 and 2', secured to the beams or iron work beneath the platform of the car. Cross bars are placed at either end of the uprights, A and A', as shown at B and C. A third bar, D, extends from one upright to the other at a point about one foot above the lower end. Continuations of this bar are seen on either side at d and d'. These extensions, of sufficient length to reach beyond the side of the car, are inclined downward to a point about two inches above the lower end of the uprights, A.

Braces, 3 and 3', are connected with the running gear or body of the car in any suitable substantial manner. These braces are bifur-

cated, and the end of each arm, 5 and 6, is U shaped, as shown in Figs. 3 and 4. The prongs of one arm, 5, are vertical to receive the upright, A, the width of which is less than the length of the prongs, to allow of the insertion of a push pin, 7, through the extremities of the prongs. The prongs of arm 6 are practically horizontal, to secure with the pin 8 the extension bars d in like manner.

By means of the eyes, 2 and 2', and hooks, a and a', and braces, 3 and 3', and bars, A and A' and d and d', the framework of the fender is held fast against the car, and at the same time may be easily and quickly released, by removing the push pins, 7 and 8, and raising the hooks, a and a' from the eyes 2 and 2'.

At the foot of the uprights, A and A', are the two forks, b and c and b' and c', between which are pivoted the horizontal bars E and E'. These bars extend, as shown in Fig. 1, directly in front of the car, parallel to the track, and at their free ends are shoes, e, with the flanges, g, to engage on the rails when the fender is set by the operator.

Diagonal supporting bars, M and N, cross between the side bars, E, and hold them rigid. The netting, as is shown in Fig. 1, is attached to the cross bar, D, and its extensions, d and d', and ropes, W, Y and W', connecting the extremities of bars, d, E, E' and d'. The rope Y may be surrounded by a spiral spring, y.

When the fender is set with the shoes, e and e', upon the rails, the netting is drawn taut over the frame, and the ropes, W, Y and W', and spiral spring, y, will have sufficient elasticity to avoid cutting a body brought in contact with the fender. A supplementary netting is stretched between the cross bars D and B, to break the force of any blow against the dashboard of the platform of the car.

In the ordinary position of the fender the bars, E and E', are horizontal and parallel to the track, and about six inches above it. In the presence of danger these bars, which are pivoted at m and m', are dropped and set the shoes, e against the rails, and the rope, Y, is thereby stretched across the track, to prevent the slightest object from passing beneath the fender.

The mechanism for holding the fender in its ordinary position, and for setting it to fit



the shoes upon the rails, is as follows: A toggle, jointed at *l* and consisting of the two rods H and L, is pivoted to the upright, A, and to the horizontal bar, E. At a point, *h*, on the rod H, is pivoted a bar, P, curved to meet the corresponding bar, P', from the rod, H', at the point *p*, some two feet above the bar, D. The united bars, O, extend a short distance above the point of union, *p*. A forked fulcrum, R, is secured to the dashboard, 12, at about the same height as the extension, O. A bent lever is pivoted to the fulcrum, R, by the push pin, *r*, and the lower arm of said lever, T, is pivoted to the extension bar, O. The upper arm, S, is pivoted to a catch, V, which extends through a slot, 13, in the dashboard, and has a detent, *v*, to catch against said dashboard. A head, Z, padded or otherwise, is affixed to the catch, V.

Ordinarily, as has been said, the horizontal bars, E and E', are held about six inches from the track, by means of the toggles, H and L, the bars, P and O, the bent lever, S, and the catch, V, with its detent, *v*, caught against the dashboard. To set the device, the operator releases the catch, V, from the dashboard, and forces it forward. This power is transmitted by means of the lever, S, and bent bars, P and P', to the toggles, H and L and H' and L', which in turn force the free end of the horizontal bars, E and E', toward the track, so that the shoes, *e* and *e'*, engage with the rails. When thus set the toggles hold the forward end of the fender from being raised by any obstacle on the track, and the flanges *g* and *g'* of the shoes prevent any transverse movement of the fender by their engagement with the rails.

As is often the case on electric cars, the hands of the motor man are engaged with the brake and motor at the time of accidents. By this invention, the fender may be set by the knee of the operator, but is not liable to be accidentally set, as is the case with fenders operated by mechanism in the floor of the platform.

Push pins with split pins, may be used as pivots at *h*, *h'*, *t* and *s*, making the complete mechanism of the fender readily removable from the car.

Having now described my invention, what I claim is—

1. In a car fender, the combination of a

support adapted to be attached to a car frame, bars rigidly connected to and extending laterally from said support, a right angled frame pivotally connected to said support and capable of vertical movement, and a flexible guard uniting the extremities of said rigid bars and right angled frame, substantially as described.

2. A car fender consisting of a vertical support adapted to be attached to a car frame; a right-angled frame pivotally connected thereto to swing in a vertical plane; flanged shoes on the forward end of said right-angled frame adapted to engage with the rails; a lever pivotally connected to the dashboard of the car; and mechanism connecting said lever and right-angled frame and adapted to engage said shoes with the rails upon the operation of said lever, substantially as described.

3. In a car fender, the combination of a support adapted to be attached to a car frame, a right angled frame pivotally connected with said support and capable of vertical movement, toggles connected with said support and right angled frame and adapted to hold said frame rigid when set; a lever pivotally connected to said car frame; and mechanism connecting said toggles and lever, adapted to set and release said toggles upon the operation of said lever, substantially as described.

4. The combination of a car frame, a dashboard having a bent lever pivotally connected therewith, a catch connected to said lever and adapted to engage with said dashboard, and a car fender connected to said car frame, and a part of which is capable of vertical movement, and connected by bars with said lever, substantially as described.

5. In a car fender, the combination of a vertical support adapted to be engaged to a car frame, a right angled frame connected to said support, horizontal bars connected to and extending laterally from said supports, and netting extending from said right angled frame to said horizontal bars, substantially as described.

In witness whereof I have hereto set my hand.

WILBUR A. PECK.

Witnesses:

W. LLOYD KITCHEL,  
GEORGE W. ROBINSON.