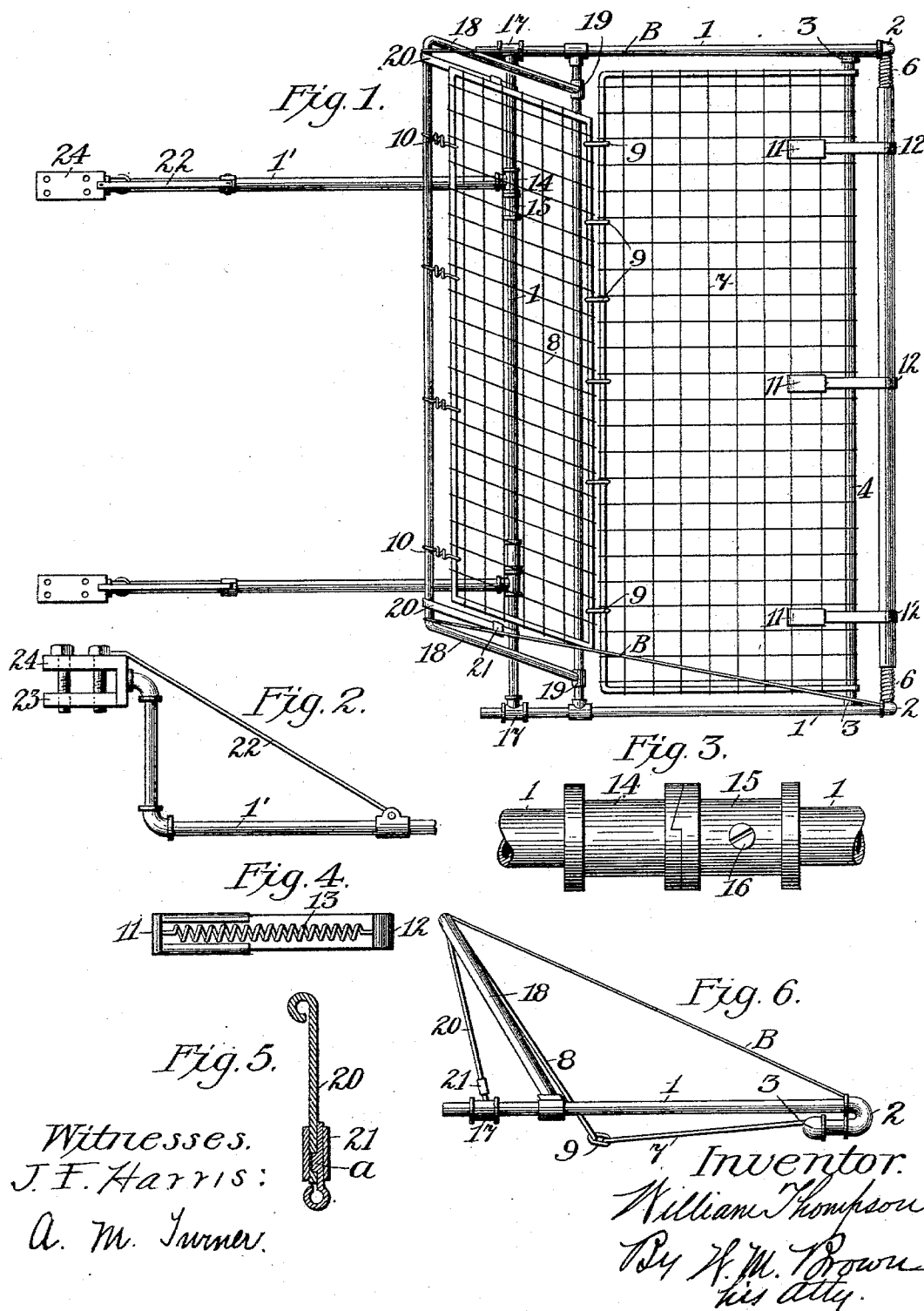


(No Model.)

W. THOMPSON.
CAR FENDER.

No. 569,684.

Patented Oct. 20, 1896.



Witnesses.
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A. M. Turner.

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UNITED STATES PATENT OFFICE.

WILLIAM THOMPSON, OF ALBANY, NEW YORK, ASSIGNOR TO EUGENE R. HARTT, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 569,684, dated October 20, 1896.

Application filed December 28, 1895. Serial No. 573,597. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THOMPSON, a citizen of the United States, residing at Albany, Albany county, New York, have invented certain new and useful Improvements in Car-Fenders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and numerals of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a new and improved car-fender.

In the drawings, Figure 1 shows a plan view of my fender in operative construction ready to be attached to a car; Fig. 2, a side elevation of one of the ends of the supporting-arms whereby it is attached to the car-truck frame; Fig. 3, a side elevation of one of the clutches used with my device; Fig. 4, a plan of the under side of one of my spring adjustments for assisting in keeping the contact-cushion in place; Fig. 5, a vertical sectional view of one of my separable braces, and Fig. 6 an end view of my fender.

The numeral 1 shows the main frame of my device, which is preferably composed of ordinary piping and pipe-fittings. On the forward corners are the two return-bends 2 2, having a piece of pipe connected with the return-bends 3 3 and the cross-bar 4, which is rigidly held in place thereby. The contact-bar 5 consists, preferably, of a soft-rubber tube, through which passes, preferably, a flexible-wire cable having at its ends the springs 6 6, said springs being attached to the sides of the main frame.

To the bar 4 is attached the wire-netting 7, and to netting 7 is attached, preferably by loops 9, the vertical dashboard-guard netting 8, said netting 8 being attached to the frame 18 by means of the springs 10 10, the two nets forming the bed and dashboard-guard and being unattached to any part of the main frame or frame 18 except by the spring 10 10 and rigidly to the bar 4. This forms a resilient wire bed.

The frame 18 is attached to the main frame 1 by means of loose couplings 19, in order

that the frame 18 may swing thereon, but it is rendered stationary when in its normal position by means of the detachable braces 20, which consist of the lower end piece having on one of its faces the offset *a*, (see Fig. 5,) the upper portion of the brace consisting of the strip 20, having an opening in its lower end to receive the offset *a* and having a slide 21, that may be slid over the netting ends and hold them fast or be removed therefrom and let them separate. When the brace 20 is in its normal position, it is rigid and maintains the frame 18 in a practically vertical position or in any position that may be desired. The side pieces of the main frame 1 slip loosely into the T-pieces 17 17, so that they may be entered therein and taken therefrom easily when the braces 20 are separated. To the wire-netting 7 are attached the stationary clips 11, in which slide the spring-adjusting slips 12, said slips having the spring 13 on their under sides attached at one of its ends, preferably, to the clips 11 and its other end to the strip, forming spring-plungers or their equivalents. This arrangement tends to prevent the contact-cushion 5 from being bulged outward and assists in keeping it in place. The T-pieces 17 17 are connected by a piece of piping, and on this pipe is slipped a loose T-piece 14, from which proceeds the arm 1' to the clamp 24, the arm 1' being strengthened by the brace 22. The clamp 24 is to be attached to the front end of the car-truck by means of the movable plate 23 and the bolts, preferably, although the attachment may be made by any other means desired. Adjacent to the loose T-piece 14 is an adjustable clutch 15, (see Fig. 3,) the ends of the adjustable clutch and of the loose T-piece being cut away to form an interlocking surface. By this arrangement of these parts the fender is set at any distance from the track desired and maintained there by simply setting the clutch 15 firmly in any position desired by means of the set-screw 16.

My device consists therefore of two main parts—viz., the arms 1' and their connecting cross-bar and the T-pieces 17 17, which are affixed to the car-truck frame, each end of the car-truck frames having a set of these arms affixed thereto permanently, and the

main frame 1 1 and the frame 18, with its woven-wire bed, which is removable from the arms 1' and adjustable thereto, in order that the bed and its frame may be taken from one end of the car and affixed in place at the other end, as occasion may require.

The operation is as follows: To set the bed and its frame in operative position, the rear ends of the frame 1 1 are inserted in the T-pieces 17 17 and the separable braces 20 20 are made fast by means of the slide 21, when the fender as a whole will be ready for use. As the car passes over the track any obstruction thereon will be first met by the contact-cushion 5, which, because of its softness and flexibility and the springs 6 6, will give sufficiently, so as not to injure the obstruction, if it be a person, but will have sufficient rigidity nevertheless to throw the person onto the bed 7, and as the dashboard-guard 8 rises practically vertical in front of the dashboard of the car the person cannot be thrown against the dashboard. As the person strikes the bed 7 it will spring or give because of the springs 10 10 and its being unattached elsewhere to the frame, except to the cross-bar 4, the loops 9 9, which are preferably of wire, holding the bed 7 and dashboard-guard 8 together, but allowing of considerable movement. The contact-cushion 5 will have been driven rearward by contact with the person, but the springs 6 6 will force it to its normal position, while springs 13 will keep it from bulging too far forward. If it is desired to turn the bed 7 up against the dashboard, separable braces 20 are separated, when the bed 7 will swing in T-pieces 14 14 upward, and bed 7 and dashboard-guard 8 may be folded together when off the car, if desired, as the T-pieces 19 19 fit loosely on the cross-bar for that purpose. I show a cable B B, attached to the front end of the fender, passing over the frame 18 and attached to the rear cross-bar for the purpose of giving stiffness to the fender and also so as to give something in the nature of end pieces to the fender that will prevent persons being thrown off the ends thereof, affording something also that may be grasped in case there is danger of thus being thrown off the ends. The springs 6 6 are each composed of two helical springs meeting endwise, and by rotating them in opposite directions the convolutions of the one enter the spaces between the other, the convolutions of each being separated sufficiently so that this may be done, they therefore acting after the manner of a turnbuckle, by which any slack in the contact-cushion 5 may be taken up, while they at the same time act as springs. Any loss of resiliency in the springs may also be corrected by this arrangement.

Especial attention is called to the fact that the bed 7 and dash-guard 8 are so constructed that the rear part of bed 7 lies lower than the front edge or portion, as seen in Fig. 6, when any weight is placed on the bed 7, as when a person falls thereon, and this is accomplished, preferably, by making the dash-guard 8 of sufficient length, so that it will allow the rear edge of bed 8 to drop lower than its front edge, the object of this especial construction being that when a person is thrown upon the bed instead of being liable to roll off the front the tendency will be to roll toward the rear and against the dash-guard 8, where the person will be retained securely.

Having described my invention, what I claim is—

1. A car-fender having supporting-arms arranged to be attached to the car-truck, said arms having a rotatable bar attached thereto and adjustable clutch devices arranged to limit the rotation of the bar, and retaining devices arranged to receive and removably hold the fender in position substantially as described.

2. A car-fender consisting of supporting-arms arranged to be attached to the car or its accessories, said arms having a rod or bar revolvably attached thereto and stop devices arranged to control the movement of said bar, and a main framework arranged to be removably attached to the rod or bar, and a movable dashboard-guard arranged to fold upon the main framework and resilient retaining devices arranged to hold the dashboard-guard in position and a bed attached to the framework and to the dashboard-guard, the resilient retaining devices being arranged to allow resilience to the bed and dashboard-guard substantially as described.

3. A car-fender having a movable contact-cushion consisting of a flexible cable covered with a cushioning material and having springs at its ends arranged to exert their resilience endwise of the flexible cable, said springs being helical in form and consisting of a plurality of helical springs, the convolutions thereof being sufficiently spread and arranged so that the convolutions of one will lie between those of the other and turn or rotate in order that the length of the springs may be lengthened or shortened, that more or less resilience may be exerted on the cushioned cable substantially as described.

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

WM. THOMPSON.

Witnesses:

J. F. HARRIS,
A. M. TURNER.