(No Model.)

T. STEIN.

CAR FENDER.

No. 556,381. Patented Mar. 17, 1896.

Fig. 1.

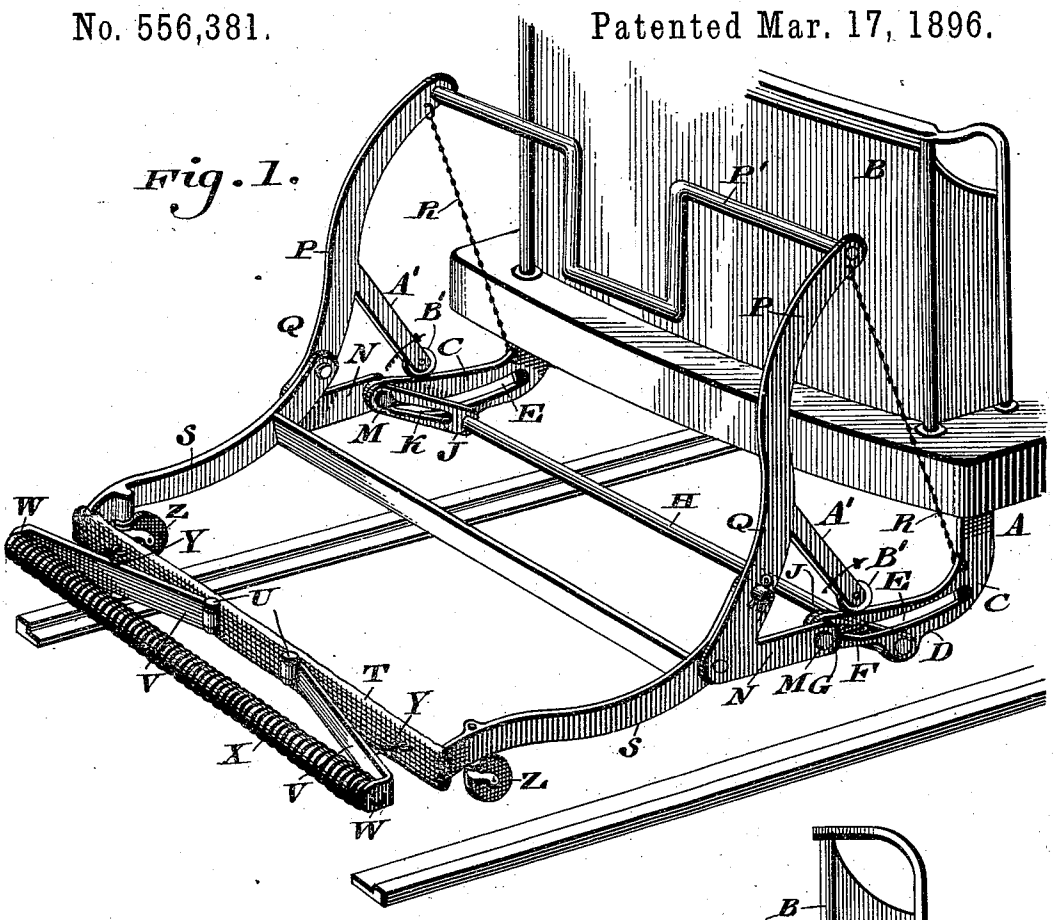

Fig. 3.

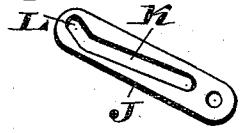

Fig. 2.

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THEOBALD STEIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO LOUIS GOOS, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 556,381, dated March 17, 1896.

Application filed December 3, 1895. Serial No. 570,896. (No model.)

To all whom it may concern:

Be it known that I, THEOBALD STEIN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel construction of car-fender which is adapted to be readily attached to existing cars, provision being made for causing the fender to be normally retained above the track, and means being further provided for causing the fender to automatically recede and descend when an object is struck, so as to pick up the same, and thus prevent it from serious injury.

It also consists of a novel construction of a locking device whereby the fender is caused to be normally retained in elevated position.

It further consists in making certain portions of the buffer movable or adjustable when struck at an angle or at one side of the center.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a perspective view of a car-fender embodying my invention, the same being shown in normal or elevated position before an object is struck. Fig. 2 represents a side elevation of the same, showing the position the parts assume after an object has been struck, the buffer, &c., being now nearly in contact with the rails. Fig. 3 represents a side view of an arm of the locking device, showing the contour of the groove therein.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the platform of a car, the same being provided with the dashboard B of usual construction.

C designates hangers attached to each side of the forward portion of the car, said hangers having a forwardly-projecting extension D, in which is located a groove or longitudinal recess E, the same having an upwardly-projecting portion F and a horizontal or downwardly-projecting portion G, as will be understood from Fig. 2. H designates a rock-shaft which is rotatably mounted in said hangers and has attached thereto the rock-arms J, which have thereon the slot K, the forward portion of said slot having an upturned portion L, the contour of which will be understood from Fig. 3. M designates a pin extending through said slots K and E and attached to the arm N of the frame Q, said frame having an upwardly-extending member P, which may be joined by a suitable cross-rod P′, said frame Q being held in desired position by means of the chains R. S designates forwardly-projecting arms which are attached to said frame Q and which have the transverse cross-bar T connected therewith. V designates arms which are pivotally mounted at U upon said cross-bar T, said arms having ears W thereon, between which extends the spring or buffer X, the movement of said arms V being limited by means of the connections Y, whereupon it will be seen that the parts normally appear as seen in Fig. 1; but if an object is struck near one side or the other of the buffer X that side will yield for the time being; but after the object is caught up the parts will assume their normal position again, because of the spring X, as is evident.

Z designates wheels or rollers attached to the under sides of the arms S and adapted to contact with the track when the fender is in depressed position.

The operation is as follows: The parts are seen in their normal position in Fig. 1, it being noted that the buffer X at the forward portion of the fender is raised above the track when the car is running under ordinary conditions, the parts being locked in the above position by means of the engagement of the pin M with the portions G and L of the grooves E and K of the hangers and rock-arms, respectively. If now an object is struck, the fender will be caused to recede and the arms J will rotate in the direction of the arrows in Fig. 1, whereupon the pin M will slide to the rear of the groove E and the parts will assume the position seen in Fig. 2, the forward portion of the fender being in its depressed position and the rollers Z in contact with the track.

If desired, a rope or chain may be connected with a suitable portion of the frame Q on the fender, which may be operated by the motorman, who exerts a pull on said frame when

he sees that an object is about to be struck, thereby causing the buffer X and its adjuncts to assume the position seen in Fig. 2, the operation being the same as if the object had struck said buffer and said object being caught up and prevented from injury.

It will of course be understood that a suitable netting is to extend between the frames Q and S and cross-bar T, said netting, however, being omitted from the drawings for the sake of clearness of illustration.

Secured to or forming part of the upwardly-extending member P of the frame Q is an arm A′, to the end of which is journaled the roller B′, the same contacting with the upper edge of the hanger C, the said arm and roller being adapted to act as a stop when the fender is caused to recede by an object being struck.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car-fender, consisting of suitable frames, slotted hangers in which said frames are mounted, a shaft mounted on said hangers, slotted arms on said shaft, and arms on one of said frames, provided with pins movable in said slots, and a stop on said fender, substantially as described.

2. A car-fender, having a frame suitably attached to a car-body, arms on said frame having a cross-bar, arms suitably attached to said cross-bar, having a buffer connecting the same, and a shaft having arms with slots therein and pins connected with the arms on the first-mentioned frame, the parts being combined substantially as described.

3. A car-fender consisting of suitable frames, slotted hangers in which said frames are mounted, a rock-shaft rotatably mounted, slotted rock-arms attached to said rock-shaft, and pins mounted on said frames and adapted to work in the slots of said hangers and rock-arms, substantially as described.

4. A car-fender consisting of the frame Q, cross-rod P′, arms S attached to said frames, the cross-bar T, the arms V pivotally mounted thereon, the spring or buffer X common to said arms, the connections Y, intermediate said arms and cross-bar, the rock-shaft H suitably journaled, the slotted hangers C, the slotted rock-arms J, and the pin M common to said frame, and the slots in said hangers and rock-arms, substantially as described.

5. A car-fender consisting of slotted hangers, a rotatable shaft mounted in said hangers, and having slotted arms, a frame with arms provided with pins movable in said slots, and a buffer connected with said frame, said parts being combined substantially as described.

6. In a car-fender, hangers having slots with downwardly-extending front portions, a rotatable shaft mounted in said brackets and having arms with slots having upwardly-extending front portions, and a frame carrying a buffer and provided with arms having pins movable in said slots, said parts being combined substantially as described.

7. A car-fender, having slotted hangers, a shaft mounted on said hangers, slotted arms on said shaft, and a frame with arms provided with pins moving in said slots, and arms having rollers moving on said hangers, said parts being combined substantially as described.

8. A car-fender having a rocking frame, provided with a cross-bar at its front, horizontal arms pivotally secured to said cross-bar, a spring connecting the outer ends of said arms, and means attached to said arms and cross-bar, for limiting the movement of the said arms, said parts being combined substantially as described.

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