

(No Model.)

2 Sheets—Sheet 1.

W. BAILEY.
CAR FENDER.

No. 583,017.

Patented May 25, 1897.

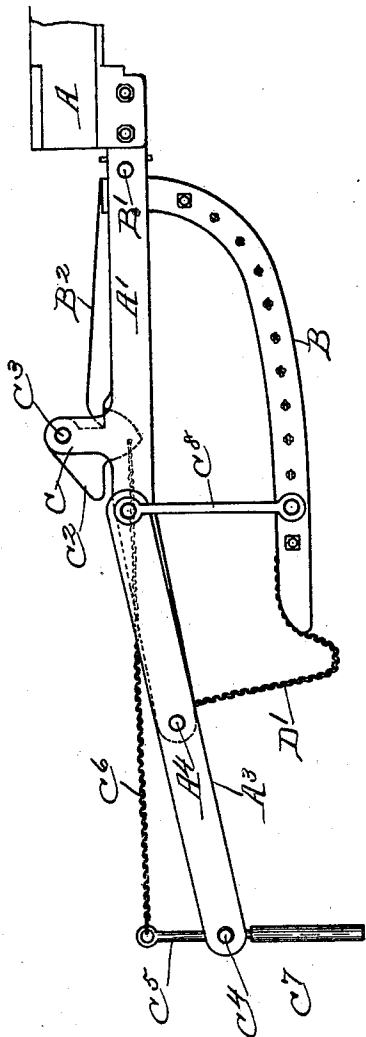


Fig. 1.

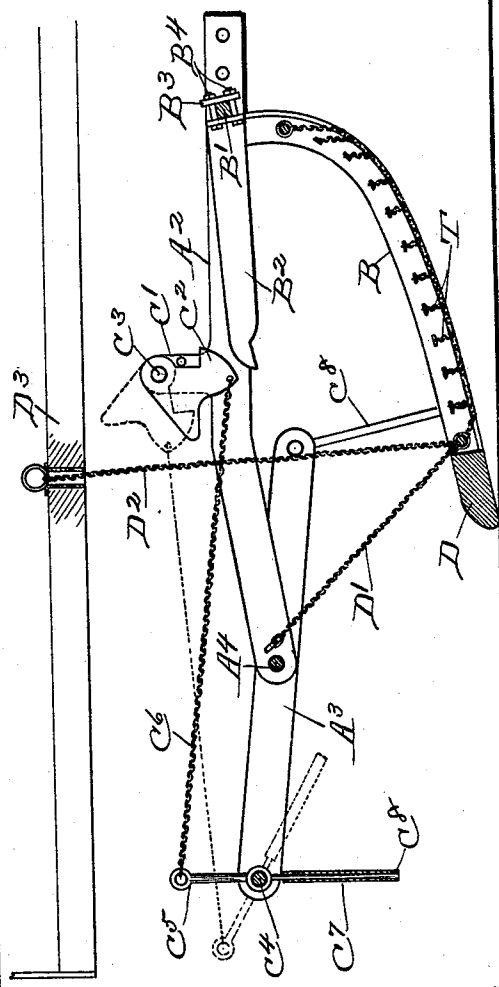


Fig. 2.

Witnesses:
Wm. Bailey Jr.
G. H. Curtis

Inventor:
William Bailey
By Inoche & Curtis.
Attys.

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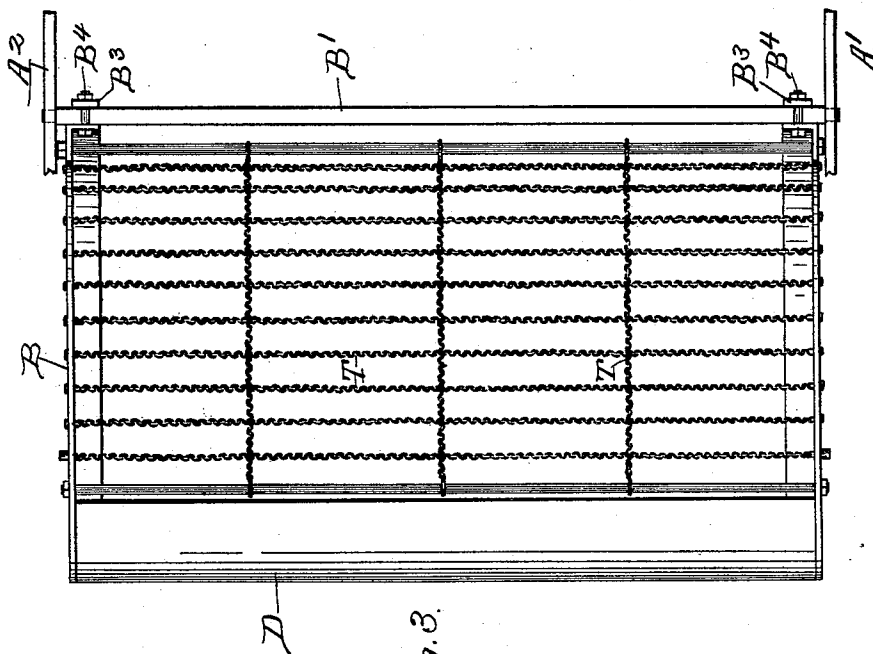


Fig. 3.

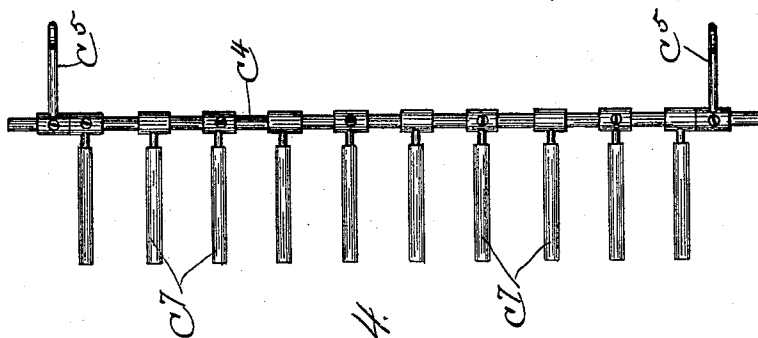


Fig. 4.

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Wm. Bailey Jr.
G. H. Curtis

Inventor:
William Bailey
By Mosher & Curtis,
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM BAILEY, OF TROY, NEW YORK.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 583,017, dated May 25, 1897.

Application filed January 11, 1897. Serial No. 618,889. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BAILEY, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of my improved fender as the same appears in position for use. Fig. 2 is a central longitudinal vertical section of the same, showing a portion of the car-platform above. Fig. 3 is a top plan view of the fender-guard pivoted upon the truck or brackets projecting therefrom. Fig. 4 is a front elevation of the trip-levers.

A is an end portion of a car-truck, to which is bolted the forwardly-projecting arms or supports A' and A². These arms are projected forward to a considerable distance for the purpose of supporting at their forward ends a tilting frame, on the forward end of which frame is fulcrumed a trip-lever which will automatically release the fender-guard from a detent mechanism and allow it to swing down to the track whenever any obstruction on the track has operated the trip-levers, the rear end of the frame being linked to the guard, so that as the latter falls it tilts the frame and correspondingly raises the tripping mechanism up above the track obstruction.

A³ represents the tilting frame, which is fulcrumed intermediately of its ends upon the forward end of the projecting support by the rod A⁴, running through from one side bar of the frame to the other and from arm A' to arm A².

B is the fender-guard, which is hinged at its rear end to the truck or the supporting-arms by rod B', running through from one arm to the other in close proximity to the

truck-frame and having end bearings in the arms. The rod B' is made square in cross-section, except at its end bearings, and is provided with a lever or arm B², clamped upon the square portion, as by the plate B³ and bolts B⁴, so that vibratory or oscillatory movements of the arm will impart similar movements to the guard. The arm and guard are maintained in the elevated position shown in Fig. 1 by means of detent mechanism comprising the uprights C and C', erected from the forwardly-projecting supports A' and A², and the pendent hooks C², pivoted at C³ upon the uprights.

The forward end of the tilting frame is provided with a crank-shaft C⁴, having end bearings in the side bars of the frame. This shaft is provided with crank-arms C⁵, one near each end, severally connected by chain C⁶ with the hooks. Depending on the crank-shaft are the fingers or crank-arms C⁷, which have the function of crank-arms and serve when they encounter an obstacle on the track to turn the crank-shaft and operate the detent mechanism to release the fender-guard, whereupon the parts assume the positions shown in Fig. 2. As the guard falls it tilts the tilting frame, being connected with the rear end of such frame by the link C⁸.

The operation of the apparatus is such that the obstacle first acts upon the depending fingers of the tripping mechanism to release the fender-guard from the detent mechanism, whereupon the falling guard lifts the tripping mechanism above the obstacle and assumes a position on the track which causes the obstacle to be caught up by the guard, thereby reducing to a minimum the danger of injury to the obstacle and the apparatus. The tripping-fingers may be any desired form or number and, together with the crank-shaft and arms C⁵, constitute a tripping-lever which operates the detent mechanism to release the guard.

I provide the forward end of the guard with a comparatively heavy toe-plate D, which makes the movement of the guard along the track in the position shown in Fig. 2 more stable and uniform with less jumping in passing over rough places than accrues with a light guard or one provided with a weighted lever. I also provide a chain connection D'

between the forward end of the guard and the fixed projecting supports, which tends to reduce the strain upon the guard and its pivotal bearings when obstacles are encountered.

5 The chain D^2 , passing from the guard up through the car-platform D^3 , serves as a convenient means for the attendant to restore the parts to the position shown in Fig. 1, the fender-arm engaging automatically with the
10 detent-hook when the guard is lifted.

By having the fender-guard clamped to the square cross-rod, as shown and previously described in connection with the arm B^2 , the guard can be easily and quickly detached for
15 repairs or for any other purpose without disturbing any of the fixtures connected with the apparatus.

By having the guard-apron composed of slack chain-netting T an object thrown upon
20 it will not bound off again as it would from the comparatively taut wire-netting heretofore employed, but will sink down into the slack and be retained upon the guard.

When desired, the parts can be restored to
25 their idle position by bearing down upon the forward end of the tilting tripping-frame, as with the foot, and the lifting-chain D^2 dispensed with.

The trip-arms C^5 are formed of metal rods
30 covered with rubber tubing, the tubing projecting a considerable distance below the ends of the rods to cover such ends, as shown at C^8 .

What I claim as new, and desire to secure
35 by Letters Patent, is—

1. In a car-fender, the combination with a

forwardly-projecting support secured to the car-truck; and a truck-supported fender-guard, vertically oscillatory toward and from the car-track; of truck-supported detent mechanism for maintaining the guard in an
40 elevated position; a tilting frame fulcrumed upon the forward end of the projecting support; a trip-lever fulcrumed upon the forward end of the frame just above the track in advance of the guard; releasing connections
45 between the lever and detent mechanism; and a link connection between the rear end of the frame and the oscillatory end of the fender-guard, substantially as described.

2. In a car-fender, the combination with a
50 forwardly-projecting support, means for securing the support to a car-truck and an oscillatory fender-guard; of guard supporting and releasing mechanism, a tilting frame fulcrumed intermediately of its ends upon the
55 forwardly-projecting support, a crank-shaft fulcrumed upon the forward end of the tilting frame, crank-fingers depending from the shaft nearly to the track, crank-arms on the
60 shaft, connections between the crank-arms and the detent mechanism, a link connection between the rear end of the tilting frame and the oscillatory guard and a flexible connection between the oscillatory guard and a fixed
65 support, substantially as described.

In testimony whereof I have hereunto set my hand this 2d day of January, 1897.

WILLIAM BAILEY.

Witnesses:

FRANK C. CURTIS,

GEO. A. MOSHER.