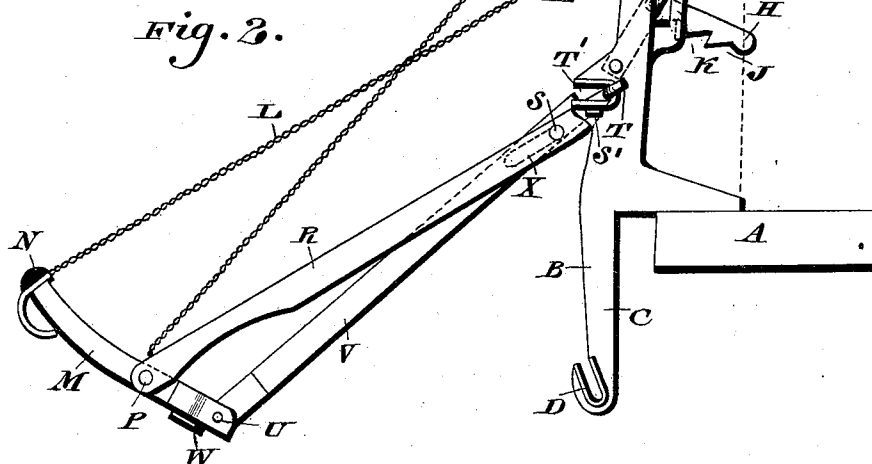
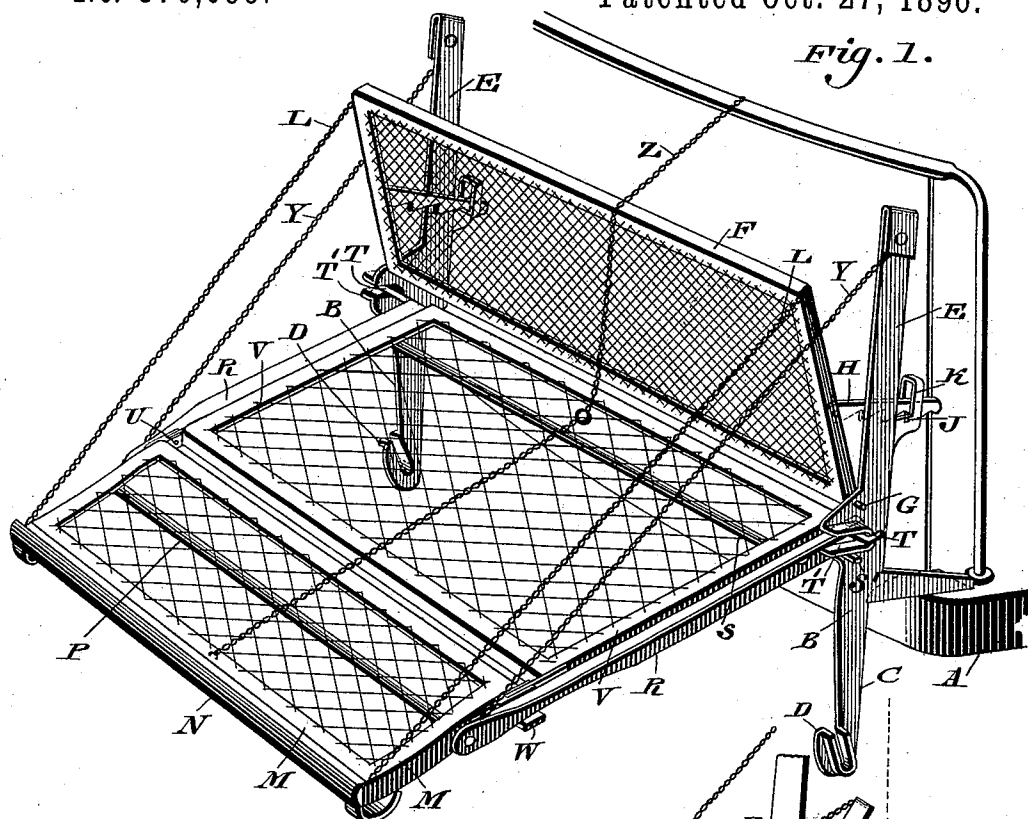


(No Model.)

H. LOTZGESELL.
CAR FENDER.

No. 570,099.

Patented Oct. 27, 1896.



WITNESSES:

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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 570,099, dated October 27, 1896.

Application filed July 18, 1896. Serial No. 599,688. (No model.)

To all whom it may concern:

Be it known that I, HENRY LOTZGESELL, 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 car-fender which is formed of a plurality of swinging frames which are pivotally connected after the manner of a toggle, one of the frames being also adapted to slide, so that when a person or object falls into the frames the latter fold downwardly and produce a cradle, in which said person or object may remain with comparative safety.

It also consists in providing the fender with a guard which is located in front of the dasher, so as to prevent a person or object from striking the latter, said guard being also adapted to convert the frames of the fender into a cradle in order to receive said person or object.

It also consists of means for holding said guard in locked position and preventing the same from moving forwardly and throwing off the person or object.

Figure 1 represents a perspective view of a car-fender embodying my invention, the same being shown in normal position. Fig. 2 represents a side elevation of the fender, showing the position the parts assume after an object has been struck and a cradle formed for the reception thereof.

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

Referring to the drawings, A designates the platform of a car, to which the hangers B are attached.

C designates a downward extension of each hanger, said extension being provided with the seat or bearing D, and said hangers having each also an upward extension E.

F designates a guard, which is pivotally supported in the hangers B by means of the journals G, said frame having rearwardly-extending racks H pivotally attached thereto, whose teeth J are adapted to engage the catches K on the extensions E.

L designates a chain or other connection, which has one end attached to the guard F,

while its other ends are attached to the frame M, which latter is provided with a buffer N and is pivotally mounted on the cross-rod P.

R designates a pair of side arms, which are joined at their forward portions by the cross-rod P, while their rear portions are joined by the cross-rod S, said arms being each provided with the pins or journals T, which are supported in suitable bearings T' in the hangers B.

U designates pins or pivots whereby the frame M is attached to the frame V, said frame M being provided with the stops W on either side, which are adapted to engage the arms R and thus limit the upward movement of said latter frame and hold the fender in operative position, as indicated in Fig. 1.

X designates a slot in the rear portions of each of the side bars of the frame V, through which slots the cross-rod S passes, said slots thus serving to permit the downward movement of the frame V after an object is struck and form a cradle with the frame M, as will be evident from Fig. 2, after which further motion of the frames is prevented by the upper walls of the slots contacting with the rods S.

Y designates chains or other connections which extend from the forward portion of the arms R to the extension E of the hangers B.

Z designates a chain or other connection which has one end attached to a suitable portion of the frame M, while its other end is adapted to be within reach of the motorman, so that the latter can fold the fender when desired.

The operation is as follows: The parts in their normal position appear as in Fig. 1, the frames M and V being in substantially the same inclined plane, while the guard F is inclined at an angle thereto and prevented from falling by means of the racks. When an object is struck, the same will be thrown backwardly into the fender and ordinarily fall into the frames, thereby causing the same to assume the position seen in Fig. 2, thus forming a cradle, the object struck being effectively retained therein and prevented from falling therefrom, as is evident. If, however, the object struck should be thrown sufficiently rearward over the frames, it may strike the

guard instead of violently contacting with the dasher. This moves the guard rearward and simultaneously exerts a pull on the connections L, causing the frames M and V to assume the inclined position relative to each other seen in Fig. 2, a cradle being formed, as before, in which the object struck will be received and retained, the downward movement of the frame V being limited by the engagement of the slots X with the rod S, as has been stated.

When it is desired to fold up the fender for economy of space or for other purposes, it is only necessary to disengage the journals T from the bearings T' and place said journals in the bearings D, the guard F being allowed to remain substantially as seen in Fig. 2, while the frames M and V can then be readily caused to assume an upright position and held there by any suitable means.

The projections S' form stops which limit the movement of the journals T when the fender is folded into an upright position.

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

1. In a car-fender, a support having upper and lower cross-rods, a plurality of frames pivoted together, the forward frame being journaled on the lower cross-rod and the rear frame being guided on the upper cross-rod, which latter passes through slots therein, in combination with means for limiting the movement of said frames, substantially as described.

2. A car-fender consisting of a support, provided with means for detachably connecting it to a car, and having upper and lower cross-rods in combination with a plurality of frames pivoted on said support, one of said pivoted frames having a buffer and provided with projecting stops adapted to abut against the sides of said first-mentioned frame, and the other pivoted frame having slots in its sides, through which passes the upper cross-bar of said arms, substantially as described.

3. In a car-fender, a set of hangers having a plurality of bearings, a support adapted to be mounted in said bearings, and consisting of side arms and upper and lower cross-rods, pins on said arms adapted to engage bearings on said hangers, and a plurality of movable frames, the forward one of the latter being journaled upon the lower cross-rod, and in pivoted connection with the rearward frames in combination with means for limiting the

movement of the latter, substantially as described.

4. In a car-fender, hangers each having hooks on their lower ends and uprights attached thereto, a support having pins with bearings on said hangers, braces connected with said support and said hangers, and a plurality of frames pivotally mounted on said supports, one of said frames having slots in its sides through which a cross-rod of said frame passes, said parts being combined substantially as described.

5. In a car-fender, the frames M and V, the guard F, the arms R with the slots X in their rear portion and provided with cross-rods, by means of which said frames M and V are supported and their movement limited, said guard F being pivotally supported and connections intermediate of said guard and frames, substantially as described.

6. In a car-fender, the guard F, the hangers B on which said guard is pivotally supported, the rack H by means of which the forward movement of said guard is limited, the side arms R having the cross-rods P and S, the frame M pivotally attached to said frame V, and having slots therein, through which the cross-rod S passes, and connections intermediate of said frames and guard, substantially as described.

7. A car-fender consisting of a hanger with an upward extension, a guard-frame journaled in said hanger and having pivoted racks with teeth engaging catches on said extension, side arms having connecting cross-bars at front and rear, said side arms being slotted and journaled in said hanger, a frame provided with a buffer and mounted on the front connecting cross-bar of said side arms, a frame pivoted to the rear end of said buffer-frame, flexible connections from said buffer-frame to said guard and flexible connections from said arms to said extension.

8. A plurality of oscillating frames pivoted together, in combination with a support therefor, consisting of side arms and cross-rods, one of said rods forming the axis for the front oscillating frame, and the other rod passing through slots in the rear frame, whereby the latter frame is permitted both to oscillate and slide, substantially as described.

HENRY LOTZGESELL.

Witnesses:

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