No. 623,818. Patented Apr. 25, 1899.

G. A. PARMENTER.

LIFE GUARD FOR RAILWAY CARS.

(Application filed Dec. 14, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

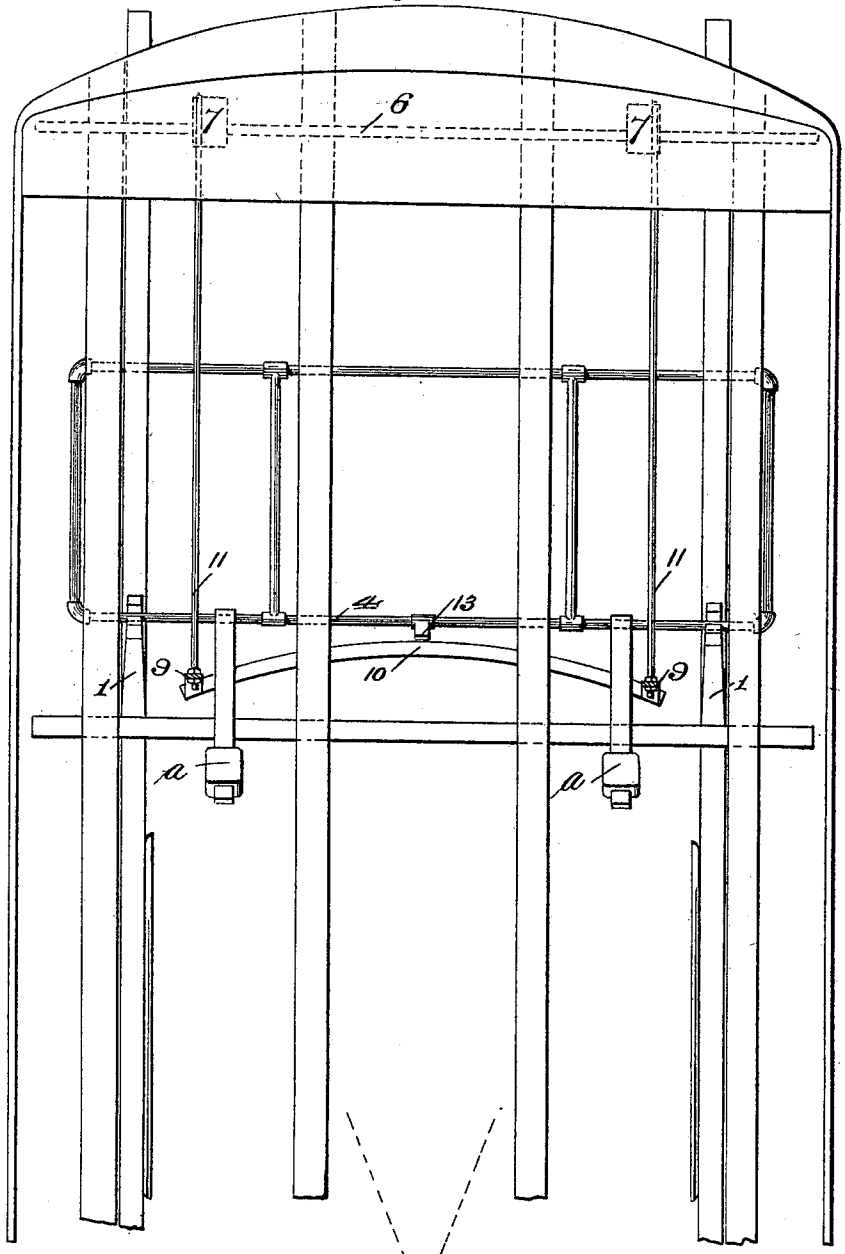

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Fig. 2.

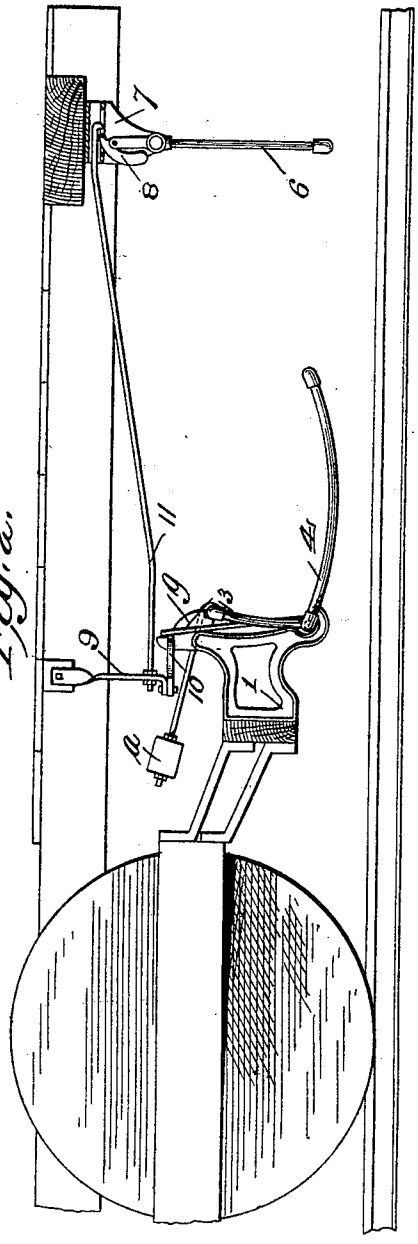
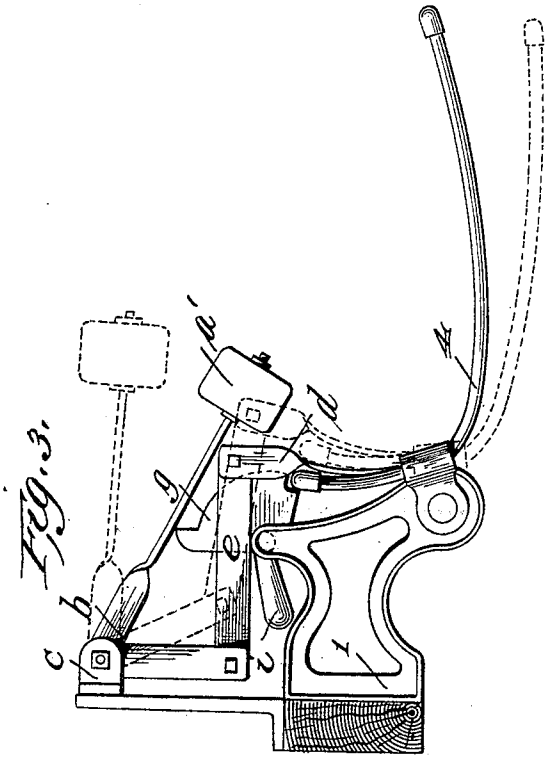


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE A. PARMENTER, OF CAMBRIDGE, MASSACHUSETTS.

LIFE-GUARD FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 623,818, dated April 25, 1899.

Application filed December 14, 1898. Serial No. 699,280. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. PARMENTER, a citizen of the United States, residing at Cambridgeport, Middlesex county, State of Massachusetts, have invented certain new and useful Improvements in Life-Guards for Railway-Cars, of which the following is a specification.

My invention relates to life-guards for street-railway cars of that class in which a pivoted scoop is used, carried in a raised position and combined with devices for causing it to drop when any obstacle is encountered upon the track.

The invention is particularly designed for cars having a double swiveled truck at each end thereof to provide for the changing of the positions of the longitudinal axis of the car and the truck in rounding curves, and, further, to provide a compact device, so that the space beneath the platform, which must be economized, may be used to the greatest advantage. To have the basket or scoop follow the wheels at all times, if the truck is swiveled it is necessary that it should be carried by the truck-frame; but as the tripper which controls the scoop is carried by the car-body and moves therewith if a positive or direct connection were made between said frame and the scoop there would be a twisting of said connections when the car rounded a curve, due to the change in relative position of the parts. To avoid this, the invention includes means for operating the scoop from the fender-frame, the means being carried by the car-body and arranged to shift bodily therewith, while yet maintaining the same operative between the scoop and fender. It further includes the location of the counterweight for the scoop, so that the whole device may be compactly placed. It also includes the details of construction to be hereinafter described, and particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a car-platform with the flooring removed. Fig. 2 is a side elevation of the same, and Fig. 3 is a detail view of a modification.

The front truck-frame is swiveled at the point x, (shown diagrammatically in Fig. 1,) and to the front side of the same, near each end thereof, a bracket 1 is secured, on which the rear bar of the scoop 4 is seated and pivotally supported, said scoop being counterbalanced by weights a. As usual, beneath the front edge of the platform a tripper-frame 6 is pivoted, which first meets the obstruction and through suitable connections to be described throws down the scoop. This tripper is pivoted in hangers 7, depending from the platform, and is provided above its pivotal point with extensions, to which dogs 8 are pivoted, which are provided with vertical engaging faces and depending tails, which act as stops for said dogs by bearing against the extensions when the trip is swung rearwardly.

Pivotally hung from each side of the platform are arms 9, which are connected at their lower ends to a cross-bar 10, which is supported thereby, said bar being curved on an arc struck from the point x.

To each of the arms 9 a rod 11 is secured at its rear end, its forward part extending through a guiding-opening in the hangers 7 on the side of the platform corresponding therewith. These guiding-openings are located directly above the dogs 8, and as the ends of the rods 11 are hook-shaped or bent down to project into the path of the same on the swinging of the tripper rearwardly the links will be drawn forwardly, thereby moving the bar 10 forwardly, which will carry with it in its forward movement the upper end of a vertical arm 13, fixed at its lower end to the rear bar of the scoop. This will, of course, depress the scoop, in which position it is held after the return of the tripper to normal position by a gravity-detent g, pivotally mounted in the brackets l and adapted to drop by gravity behind the scoop when the same is depressed. A handle i is provided at one end of the shaft carrying the detent, by means of which it may be restored to normal position.

By curving the bar 10 on an arc struck from the point x it will be apparent that in any position of the truck-frame relatively to the car-body, and consequently the position of the scoop and the arm 13, the said arm will always maintain a uniform or the same distance from said bar, so that the scoop will be

operated equally well in any position of the truck-frame upon the tilting of the tripper.

In Figs. 1 and 2 the weights *a* are shown as carried on arms extending rearwardly from the scoop. It often happens, however, that there is insufficient room between the truck-frame and the position where the scoop must be located to permit the counterbalance to extend rearwardly, as shown at *a*, Figs. 1 and 2, so I may arrange the same forwardly of the pivotal point of the scoop, as shown in Fig. 3. Each counterbalance *a'* in this construction is carried on the end of a horizontal member of a bell-crank lever *b*, pivoted to a bracket *c*, fixed to the truck-frame. The end of the vertical member of the bell-crank lever is connected by a link *e* to the upper end of a vertical arm *d*, secured to the scoop.

I claim—

1. In combination, the car-body, the truck-frame swiveled thereto, the scoop carried by the truck-frame, and means carried wholly by the car-body for operating the scoop, said means maintaining a uniform operating position in relation to the scoop in all relative positions of the truck-frame and car-body, substantially as described.

2. In combination, the car-body, the truck-frame swiveled thereto, the scoop carried by the truck-frame, the tripper carried by the car-body and automatically-adjusting operating connections interposed between the scoop and tripper arranged to automatically adjust themselves to the relative movements of the car-body and swiveled truck-frame, substantially as described.

3. In combination the car-body, the swiveled truck-frame, the scoop pivotally supported from the truck-frame, the tripper, a movable bar wholly supported from the car-body and movable with relation to the car-body, said bar in all positions of the truck-frame and car-body maintaining a uniform operative position in relation to the scoop, and operating connections from the tripper to the movable bar, substantially as described.

4. In combination, the car-body, the swiveled truck-frame, the scoop pivotally supported therefrom, the tripper pivoted to the car-body, and a bar operated from said tripper movably supported from the car-body and adapted to actuate said scoop, said bar being curved on an arc struck from the pivotal point of the truck-frame, substantially as described.

5. In combination, the car-body, the swiveled truck-frame, brackets secured to said frame, a scoop pivotally supported by the brackets, an arm for depressing the scoop, a tripper pivotally supported from the car, a bar curved on an arc struck from the pivotal point of the truck-frame movably supported from the car-body and a connection between said tripper and bar, substantially as described.

6. In combination, the car-body, the truck-frame, a scoop pivotally supported therefrom, an arm for depressing the scoop, the tripper pivotally hung from the car-body, a curved bar, arms pivotally connecting the same at each end to the car-body, and links or rods secured to said connecting-arms and operated by said fender-frame, substantially as described.

7. In combination with the pivoted scoop having a weight to hold it normally in raised position and locking mechanism for holding it down when depressed, a rod, a link extending forwardly through a guide and a pivoted fender-frame having an upward extension, a pivoted detent provided with a face to engage said arm and having a rear curved extension, substantially as described.

8. The combination with a car, of a scoop pivoted beneath the platform thereof and extending forward from its pivot-point and a counterbalance for said scoop also located forwardly of the pivotal point of said scoop, substantially as described.

9. In combination, the car, the scoop, a bell-crank lever, a counterbalance secured to one member thereof and a connection between the other member of the lever and the scoop, substantially as described.

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

GEORGE A. PARMENTER.

Witnesses:

W. B. DAVIS,

JOHN H. WYETH.