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J. W. BETTENDORF, ADMINISTRATOR.  
GUARD CLEAT FOR RAILWAY CAR DOORS.  
APPLICATION FILED AUG. 13, 1910.

1,025,446.

Patented May 7, 1912.

Fig. 1.

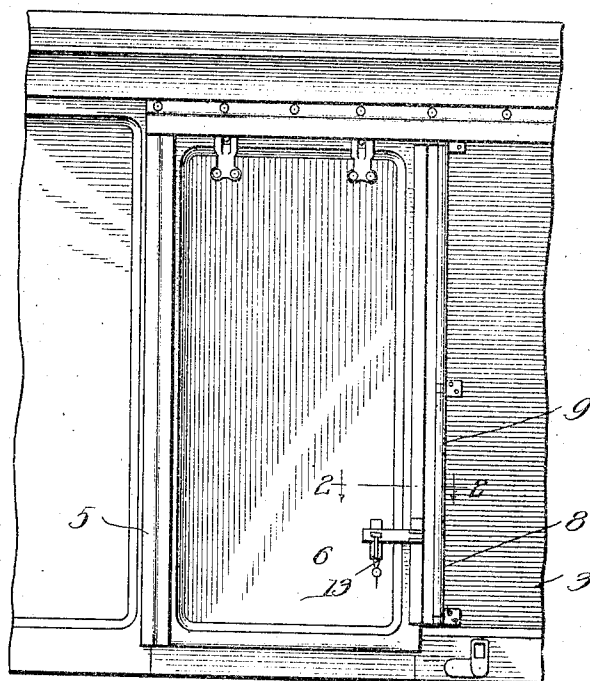
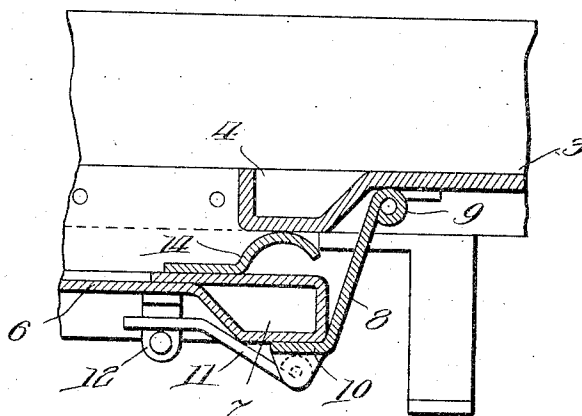


Fig. 2.



Witnesses:

Harry S. Gaither  
E. Lundy.

Inventor:

William P. Bettendorf, deceased  
Joseph W. Bettendorf, Administrator  
by Frank D. Thomason, atty

# UNITED STATES PATENT OFFICE

WILLIAM P. BETTENDORF, DECEASED, LATE OF BETTENDORF, IOWA, BY JOSEPH W. BETTENDORF, ADMINISTRATOR, OF DAVENPORT, IOWA.

## GUARD-CLEAT FOR RAILWAY-CAR DOORS.

1,025,446.

Specification of Letters Patent.

Patented May 7, 1912.

Application filed August 13, 1910. Serial No. 577,096.

*To all whom it may concern:*

Be it known that WILLIAM P. BETTENDORF, deceased, late a citizen of Bettendorf, Iowa, did invent a new and useful Guard-Cleat for Railway-Car Doors, of which the following is a specification.

This invention relates to car-doors and particularly to the sliding side doors for freight cars.

The principal object of this invention is to confine and protect the rear vertical edge of a sliding car-door, in such a manner that it not only assists in locking the door in a closed position, and prevents the lower edge of the door from being blown outward and becoming damaged, or injuring the cars of a passing train, but it seals the edge of the door so as to keep dust and dirt being blown into the car, back of it.

Another object of this invention is to prevent lateral vibration and consequent rattling of the door.

These and other objects are accomplished by the means and in the manner hereinafter fully described and as more particularly pointed out in the claims; reference being had to the accompanying drawings forming a part hereof, wherein:—

Figure 1 is an elevation of a fragmentary portion of the body of a sheet metal box-car showing the application of this invention thereto, and Fig. 2 is a horizontal section of the same (drawn to an enlarged scale) taken on line 2—2 and looking in the direction of the arrows.

Referring to the drawings, 3 represents a central fragmentary portion of the body of a box-car the side-walls of which are shown to comprise a series of paneled sheet-metal plates, and are provided with suitably arranged door-openings therein, at about the center of the longitudinal sides of the car. As shown, the vertical sides of the door-opening are made by flanging inwardly the vertical edges 4 of the metal panels above mentioned. To one of these flanges a suitably shaped jamb or stop-plate 5 is secured, against which the door abuts when in a closed position. This door 6 which forms the subject-matter of a companion pending application for Letters Patent of the United States preferably consists of a rectangular sheet-metal panel slightly larger in dimensions than the opening of the doorway and having its central area depressed and its

vertical and upper sides rolled back to form a tubular edge 7, as shown. The lower edge of said door has a suitable engagement with the door-sill, while the upper edge is provided with door-hangers that travel in a suitable tram-plate when the door is moved. When the door is closed its rear vertical edge is adapted to be covered by a shutter or guard-cleat 8, which consists of a vertically elongated plate, corresponding in height to that of the door, and of such a width that with one vertical edge hinged to the sunken part of the wall-panel adjacent to the vertical edge of the doorway, the opposite edge, when the cleat is swung outward will project beyond the vertical plane of the outer surface of the door. This cleat has its hinged edge provided with a piano hinge, and the knuckles thereof extend its entire length and it has its outer vertical edge flanged or bent toward the doorway. When this guard-cleat is swung outward, as shown in Fig. 2 of the drawings, its flanged edge 10 will, if the door is closed, overlap the adjacent tubular edge 7 thereof, and the width of the flange 10 is such that, when said guard is swung back, it will lie flat against the outer surface of the panel of the car-wall and back of the plane of the line of travel of said door and permit the latter to move past it when it is desired to open the same. At a suitable point along its height flange 10 of said guard 8 has an elongated latch 11, hinged to the outer surface of the flanged portion 10. This latch is shaped like an obtuse angle and when its end engages the hasp 12 secured to and projecting from the door, the portion of its length nearest its hinge will extend down in front of the outer angle of the tubular edge of the door and lock the door between it and the guard-cleat 8 against sliding movement. This construction of the latch likewise relieves the strain on the lock entirely.

In order to force the rear edge of the door outward when the same is closed, and to make as tight a jamb as possible between the door and the lapping flanged edge 10 of the guard, the inner surface of the tubular rear edge of said door is provided with spring plate 14. The vertical edge of this spring-plate, opposite the adjacent edge of the doorway, is riveted or otherwise secured to the door, and the vertical edge portion nearest and directly back of the door edge

is curved rearwardly so as to come in direct contact with the edge of the panel of the side-wall of the car-body and thus push the door outwardly. The relation of the latch, spring-plate and guard-cleat is such that when the opposite edge of the door engages the jamb, and the latch is locked, the vertical edges of the door are sealed and there is little, if any vibration of the same.

10 What is claimed as new is:—

1. The combination with a car having a door-opening, and a vertical guard-cleat, one vertical edge of which is hinged to the side of the car adjacent to the side of said opening and the other edge of which is constructed to engage the front of the door; of a sliding-door, the rear vertical edge of which when closed is engaged by the outer edge of said cleat, and means that close the space between the door and the adjacent edge of the door-opening.

2. The combination of a car having side-walls provided with a suitable doorway, one vertical edge of which is provided with a suitable jamb, and a sliding door for said doorway, of a vertical guard-cleat, one vertical edge of which is hinged to the side of the car adjacent to the side of the doorway opposite said jamb-plate, while the opposite vertical edge is constructed to engage the

front of the door and is adapted to be swung outward to engage and seal the adjacent rear edge of the door, and means that close the space between the door and the adjacent edge of the door-opening.

3. The combination of a car having side-walls provided with a suitable doorway, one vertical edge of which is provided with a suitable jamb, and a sliding door for said doorway, of a vertical guard cleat, one vertical edge of which is hinged to the side of the car adjacent to the side of the doorway opposite said jamb-plate, while the opposite vertical edge is constructed to engage the front of the door and is adapted to be swung outward to engage and seal the adjacent rear edge of the door, a latch carried by said cleat that is adapted to engage a member on said door and lock said door, and means that close the space between the door and the adjacent edge of the door-opening.

In witness whereof I hereunto set my hand and seal this 5th day of August, 1910.

[L. s.] JOSEPH W. BETTENDORF,  
*Administrator of the estate of William P. Bettendorf, deceased.*

Witnesses:

A. B. FRENIER,  
O. C. STABY.