

No. 745,716.

PATENTED DEC. 1, 1903.

A. F. COULTER.
DOOR HANGER.

APPLICATION FILED APR. 13, 1903.

NO MODEL.

Fig. 1

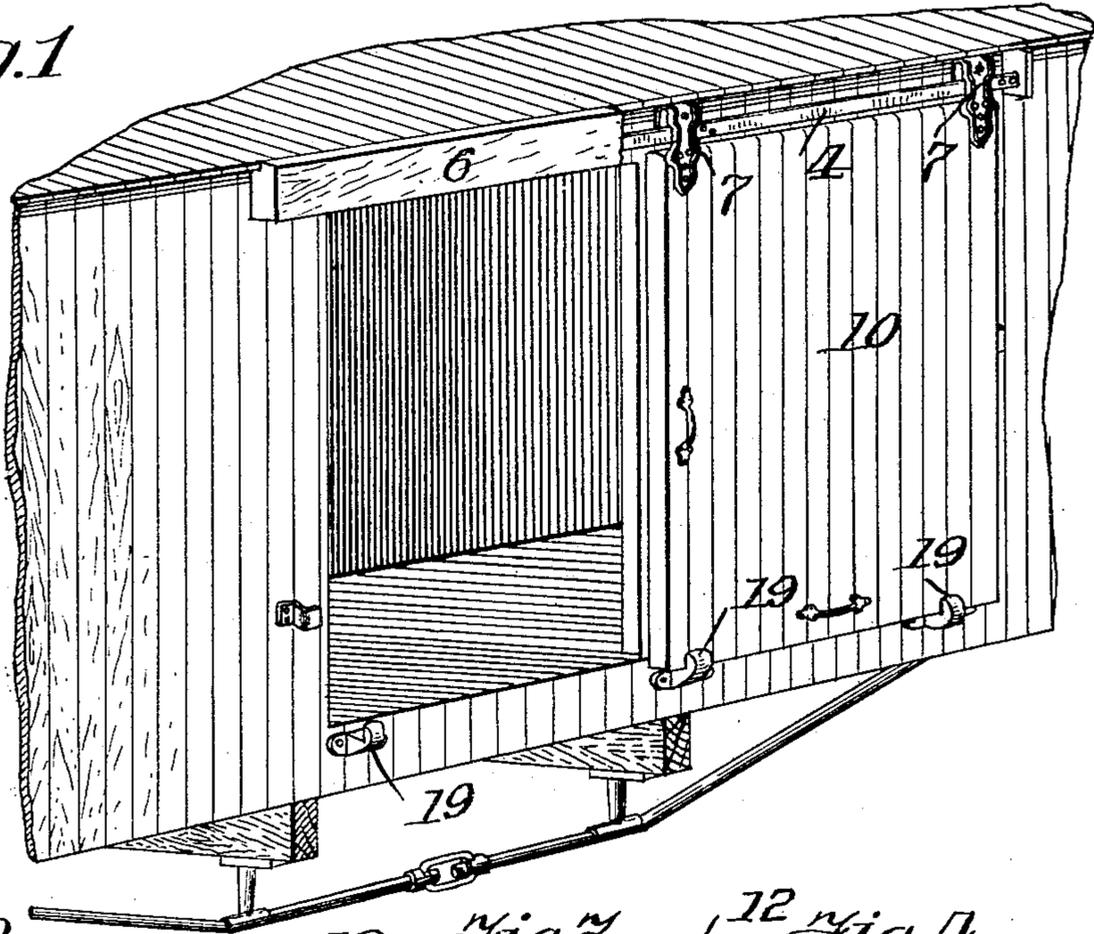


Fig. 2

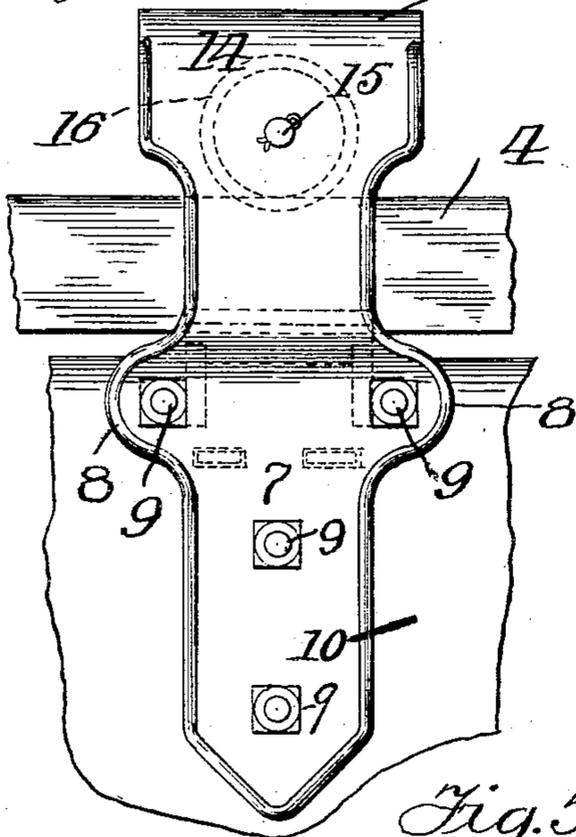


Fig. 3

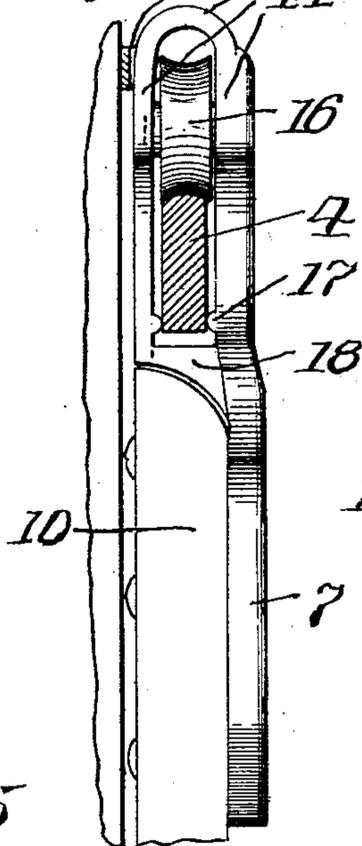


Fig. 4

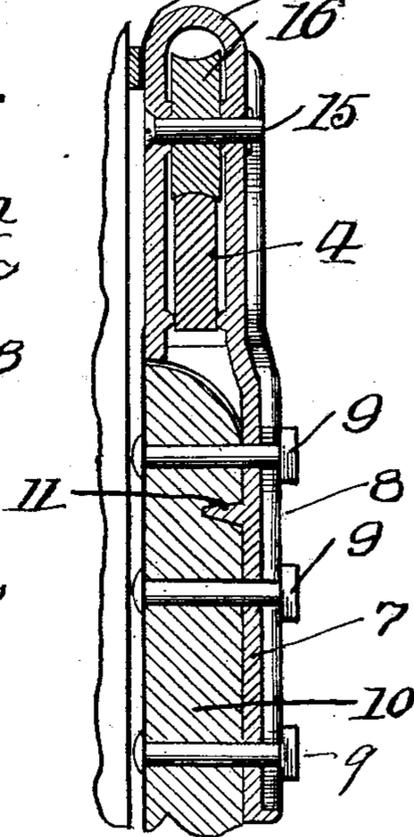
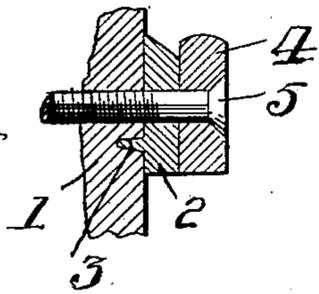


Fig. 5



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UNITED STATES PATENT OFFICE.

ANDREW F. COULTER, OF PITTSBURG, PENNSYLVANIA.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 745,716, dated December 1, 1903.

Application filed April 13, 1903. Serial No. 152,287. (No model.)

To all whom it may concern:

Be it known that I, ANDREW F. COULTER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in door-hangers and relates more specifically to that class employed for the hanging of doors such as are employed on freight-cars and the like.

15 The primary object of my invention is to so construct a door-hanging device for ordinary single or double sliding doors that in event of the lower guides for the door or doors becoming detached from the car the door or
20 doors will still be retained in their proper position and prevented from swinging out at the bottom, where to endanger the same catching with the cars of a passing train, striking some object or person along the track, or occasion-
25 ing other damage.

It is a further object of my invention to pass the rails from which the door or doors are suspended directly through the hanger, whereby all danger of the door becoming acci-
30 dentally detached from the rails and lost is obviated.

My invention consists in the novel construction, combination, and arrangement of parts, to be hereinafter more specifically described
35 and then particularly pointed out in the accompanying claims, and in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of
40 reference will be employed for indicating like parts throughout the different views of the drawings, in which—

Figure 1 is a perspective view of a part of a box-car, showing my improved hanger in
45 position. Fig. 2 is a front elevation of my improved hanger applied to the door, the latter being partly broken away, and also showing a part of the rail. Fig. 3 is a side or edge view of the hanger, showing same attached
50 to the door, the latter being broken away, and also showing a part of the car-wall. Fig. 4

is a transverse vertical sectional view of the hanger and a part of the door, also showing a part of the car-wall. Fig. 5 is a transverse vertical sectional view of the rail, one of the
55 brackets therefor, and a part of the beam of the car to which the bracket and rail are secured.

Referring to the drawings in detail, 1 indicates the beam or frame of the car, to which
60 is attached brackets 2, preferably secured, in addition to the bolts passing therethrough, with studs 3, which project into the beam or frame. For a single door, as shown in this illustration, three of these brackets would be
65 employed, one adjacent to each end of the rail 4 and one centrally of the length of the rail. The rail 4 is secured to the brackets and to the beam or frame by means of bolts
70 5, passed through these parts, as seen in Fig. 5, and secured by a nut. The rail together with the hangers, to be hereinafter described, are preferably inclosed by a suitable hood 6.

My improved hanger embodies in its construction the plate 7, provided with the side
75 ears or lugs 8 and secured by bolts 9 through these side ears or lugs and also through the plate proper, as shown, to the door 10. I preferably also construct this plate on the
80 part which engages the outer face of the door 10 with studs or bosses 11, adapted to engage into the face of the door, as shown. The plate is offset slightly just above the upper edge of the door, being bent in slightly, as shown,
85 whereby to bring the wheel carried by the hanger directly in line with the door. The plate above the offset is carried upwardly in a vertical line and given a return-bend whereby to form the loop 12, through which the
90 rail 4 is passed. In the two vertical parallel arms 14 of the plate which form the hanger is mounted on a pin 15 the wheel or roller 16, which may be grooved or plain tread, as desired.

The arms forming the hanger are preferably
95 provided on their inner faces at a point some distance below the wheel or roller with ribs or bosses 17, which may be made so as to engage with the sides of the rail, as shown, or a slight clearance be left between these bosses
100 and the rail. The two vertical members 14 of the hanger are connected together below these

ribs or bosses by webs 18, the lower face of which is curved so as to conform to the arc usually given to the upper edge of the door.

At the bottom of the door I prefer to employ the usual lower guides 19; but as it is a frequent occurrence for these guides to be broken off and thus allow the door to swing out at the bottom I provide a guard-rail 20, attached to the car-wall and disposed above the rail 4. A slight clearance is left between this guard-rail and the inner member 14 of the hanger, so that the door is free to be moved to open or close the same without engaging the guard-rail; but in event of the guides at the bottom of the door becoming broken or detached the outward movement of the lower end of the door for the fraction of an inch will cause the inner member of the hanger to engage with the guard-rail 20, and thus arrest the outward movement of the door at the bottom as effectually as though the lower guides were still in position. By providing the bosses or ribs 17 on the vertical members of the hanger I am enabled to give the wheel or roller sufficient space for free and easy movement and yet prevent wobbling or lateral movement of the hanger on the rail.

While I have herein shown and described the invention in its preferred form as it is practiced by me, yet it will be evident that various slight changes may be made in the details of construction without departing from the general spirit of the invention.

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

1. In a car-door hanger, the combination with a car-wall, a guard-rail secured thereto, and the car-door, of a hanger comprising in its construction a plate having studs adapted to be seated in the side of the door, said plate having two vertically-disposed members formed integral therewith and connected by an integral web at their lower ends, said members having bosses formed on their inner faces adapted to lie adjacent to opposite sides of the rail on which the wheel travels, and the wheel or roller journaled between said members to ride on said rail, substantially as described.

2. A car-door hanger comprising in its construction a plate having at its upper end two vertical integral members connected together at their lower ends by an integral web and adapted to receive a rail between the same, and a wheel or roller journaled between the said members and adapted to travel on the rail received between said members, substantially as described.

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

ANDREW F. COULTER.

Witnesses:

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