

B. D. JONES.

CAR DOOR.

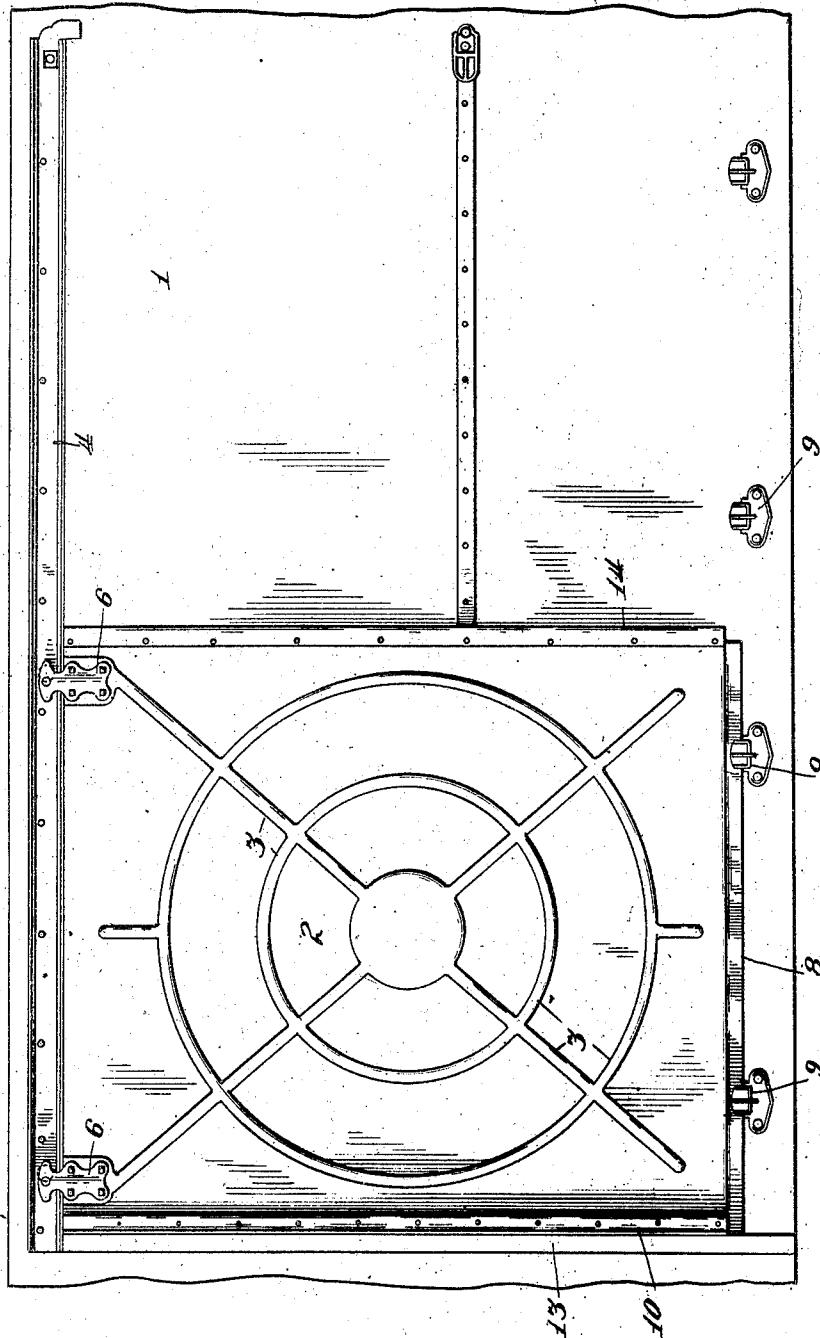
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3 SHEETS—SHEET 1.

1,036,854.

Fig. 1.



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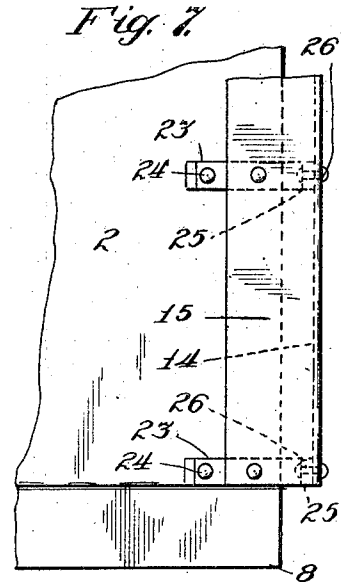
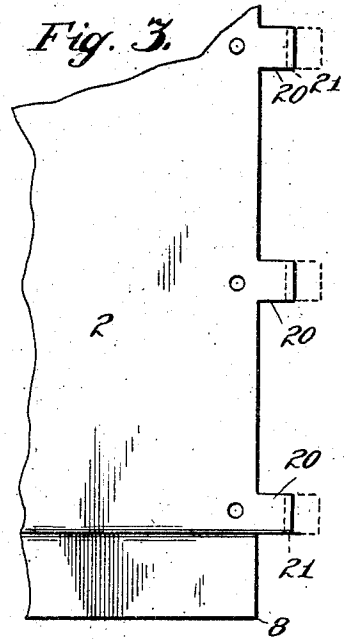
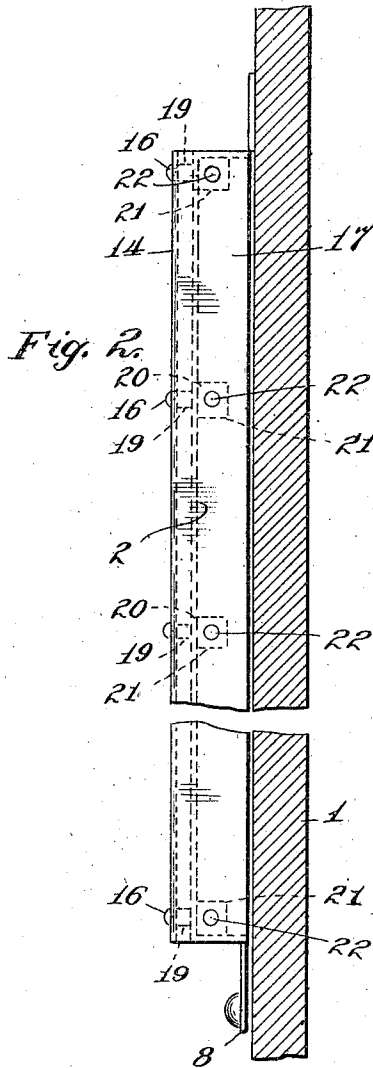
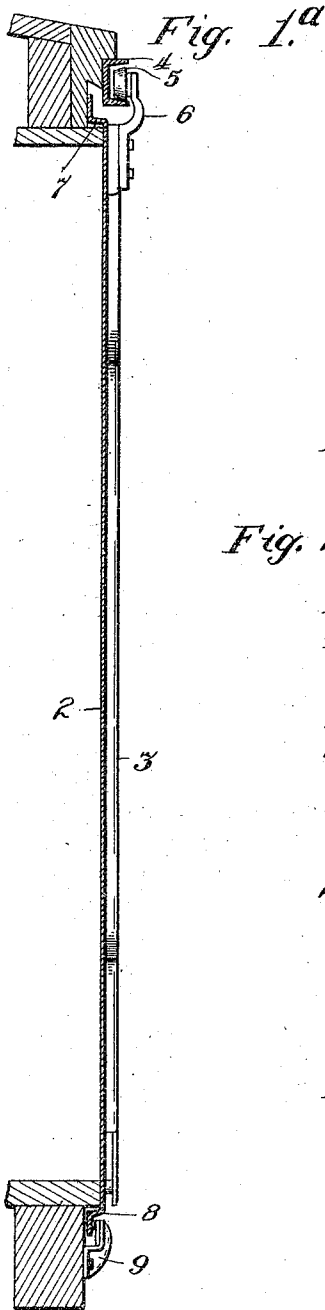
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3 SHEETS—SHEET 2.

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CAR DOOR.

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3 SHEETS—SHEET 3.

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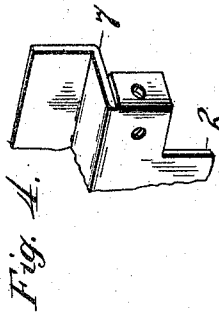


Fig. 5.

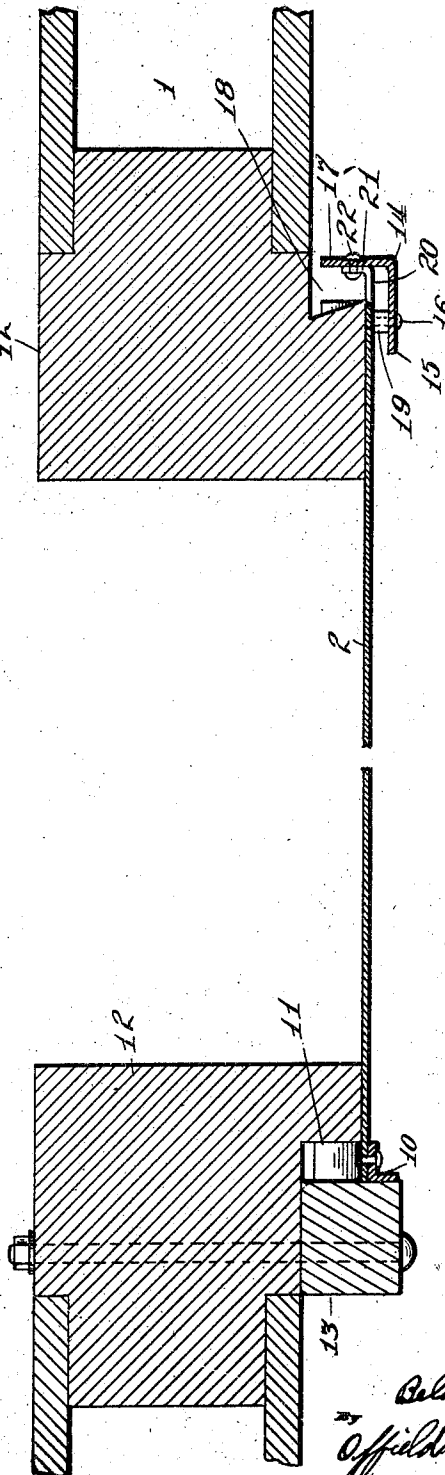
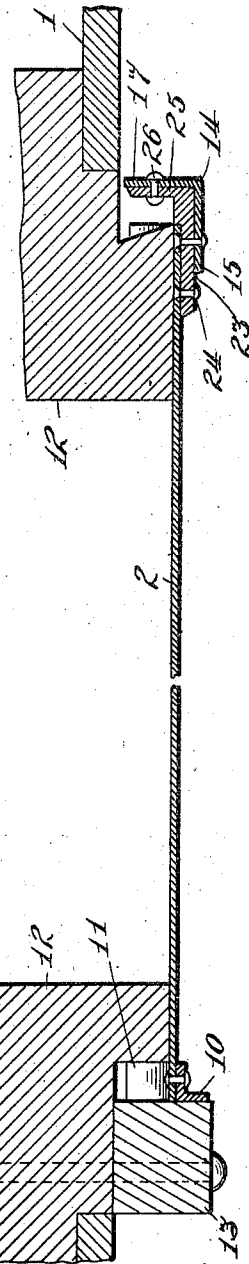


Fig. 6.



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UNITED STATES PATENT OFFICE.

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CAR-DOOR.

1,036,854.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Original application filed September 22, 1911, Serial No. 650,671. Divided and this application filed
December 28, 1911. Serial No. 668,293.

To all whom it may concern:

Be it known that I, BELDEN D. JONES, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification.

This application is a divisional application of an original application filed September 22, 1911, Serial No. 650,671.

The invention relates to improvement in car doors and has among its salient objects to provide an improved form of weather-guard which is adapted for use with either sheet metal or wooden doors and may be readily applied to any of the standard types of car doors; to provide a construction of the character referred to which obviates any danger of binding due either to closeness of fit or warping of the car body or car door; to provide an improved form of weather-guard which is extremely simple and economical in construction and at the same time is reliable in operation effectually preventing any water from entering or seeping into the car body, and in general to provide an improved construction of the character referred to.

In the present instance I have shown my improved form of weather-guard as applied to a steel door construction although it is to be understood that it can be as readily applied to the ordinary type of wooden freight car doors.

The invention consists of the matters hereinafter described and more particularly pointed out in the appended claims.

Referring to the drawings,—Figure 1 is a fragmentary side elevation of a steel freight car door equipped with my invention. Fig. 1^a is a transverse sectional view of the same. Fig. 2 is a fragmentary rear end view of the door and showing the car body in section and showing the weather-guard in dotted lines. Fig. 3 is a fragmentary side elevation of the door on an enlarged scale and showing more particularly the blocks or braces for the weather-guard. Fig. 4 is a fragmentary perspective view showing the manner of constructing these blocks. Fig. 5 is a horizontal sectional view with central part of the door broken away to reduce the size of the drawing. Fig. 6 is a view similar to Fig. 5 but showing a

modified form of brace for supporting weather-guard. Fig. 7 is a fragmentary side elevation of the construction shown in Fig. 6.

Referring to the drawings,—1 designates as a whole a car body provided with a suitable door-opening across which is adapted to slide a car door 2 which in the present instance is shown as made of steel and having a plurality of reinforcing ribs 3. Above the door-opening is secured a channel-shaped track member 4 in which ride track wheels 5 carried by bracket 6 secured to the upper end of the door. At this upper end the door has an angle iron 7 which projects into a recess formed by the track and the car body; and at this lower end the door has a similar angle iron 8, the lower flange of which projects into the lower confining brackets 9. These angle irons are formed integrally with the body of the car but have nothing to do with the present invention. The front edge of the door has a strengthening angle iron 10 and weather channel 11 is formed between one of the door posts 12 and door stop 13.

Referring now to the salient feature of my invention, to wit, to my improved weather-guard, to the rear edge of the door is secured an angle iron 14. One flange 15 of this angle iron is riveted as shown at 16 to the outer face of the door, while the other flange 17 projects inwardly beyond the plane of the door and together with the door post 12 forms a vertical weather-channel 18. The flange 15 is spaced away from the face of the door a slight distance by means of space-blocks 19 through which rivets 16 extend. The other flange 17 of the weather-guard is also braced and strengthened by means of lugs or tongues 20. These tongues may be struck out of the door to take the form shown in dotted lines in Fig. 5 and are then bent inwardly at right angles as shown at 21. The extensions 21 are riveted, as shown at 22, to the flange 17 of the weather-guard. The construction is peculiarly well adapted for preventing moisture from entering the car at the rear end of the door. Any moisture which enters channel 18 will either escape at the upper or lower end of this open-ended channel or pass through the space between the flange 16 and the edge of the door.

As far as I am aware I am the first to provide a weather-guard secured to the rear end of the door but spaced away from both the edge and face of the latter.

5 In Figs. 6 and 7 I have shown a slightly modified manner of supporting the weather-guard. In this construction a plurality of supporting brackets 23, which may be formed of castings, are riveted as shown at 10 24 to the outer edge of the car door. These brackets 23 project beyond the edge of the door and are each provided with an in-turned flange 25, which is riveted, as shown at 26, to the in-turned flange of the weather-guard. 15 The outer flange 15 of the weather-guard may be secured to the brackets 23 by means of the same rivets 24. It will be noted that the brackets 23 are relatively narrow and as the weather-guard extends through- 20 out the height of the door the weather-guard is spaced away from both the face and edge of the door substantially throughout its entire length. The invention is not limited to the details of construction shown except as set forth in the appended claims.

I claim as my invention:

1. The combination with a car body, having a car door opening, a door post at either 30 end of said opening, a door mounted to move across said opening, and an angle-iron secured to the rear edge of the door and forming a weather guard, one flange of said angle-iron being substantially parallel with but spaced away from the front face of the 35 door, and the other flange of said angle-iron projecting inwardly beyond the rear edge of the door and similarly spaced away from the latter, said angle-iron extending substantially throughout the height of the door.

40 2. The combination with a car body having a car door opening, a door post at either end of said opening, a door mounted to move across said opening, the post for the rear end

of the door projecting beyond the plane of the car body, an angle-iron extending along 45 the rear edge of the door substantially throughout the height of the latter, one flange of said angle-iron being substantially parallel with but spaced away from the front face of the door, and the other flange of 50 said angle-iron projecting inwardly beyond the rear edge of the door and similarly spaced away from the latter.

3. The combination with a car body having a door opening, of a door post at either 55 end of said opening, a door mounted to move across said opening, a substantially L-shaped weather-guard extending along the rear edge of the door when secured thereto and extending substantially throughout the 60 height of the door, one side of said weather-guard lying alongside of but spaced away from the front face of the door, and the other side of said weather guard projecting inwardly beyond the rear edge of the door and 65 similarly spaced away from the latter.

4. The combination with a car body having a door opening, of a door post at either 70 end of said opening, a door mounted to move across said opening, a substantially L-shaped weather guard extending along the rear edge of the door when secured thereto and extending substantially throughout the 75 height of the door, one side of said weather-guard lying alongside of but spaced away from the front face of the door, and the other side of said weather guard projecting inwardly beyond the rear edge of the door and similarly spaced away from the latter, 80 and spacing members spacing both sides of said weather guard away from the face and rear edge of the door respectively.

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