

E. A. HILL.
 TRACK AND HANGER FOR FREIGHT CAR DOORS.
 APPLICATION FILED JAN. 24, 1910.

995,787.

Patented June 20, 1911.
 2 SHEETS—SHEET 1.

Fig. 1.

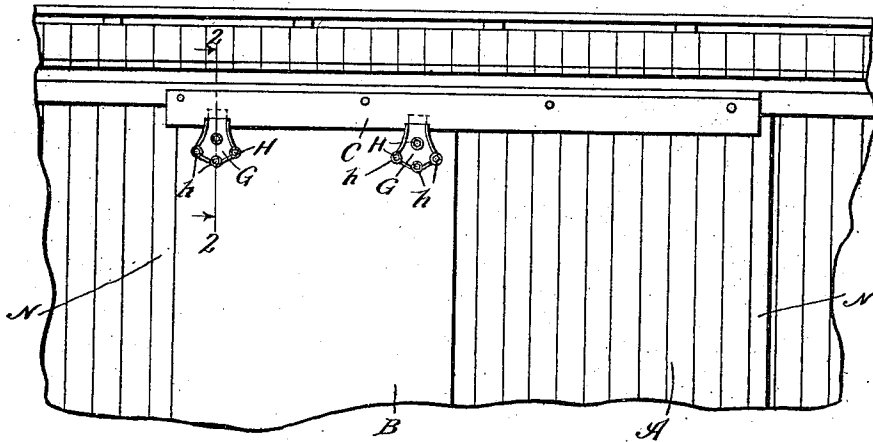


Fig. 2.

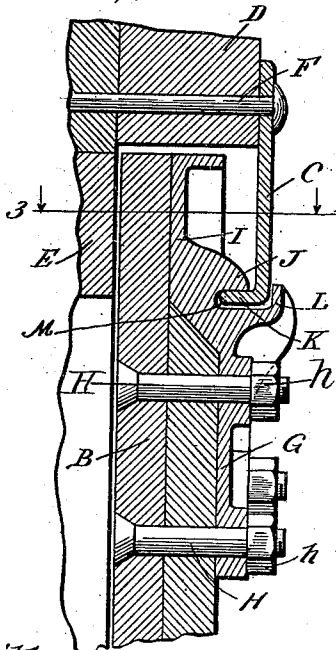
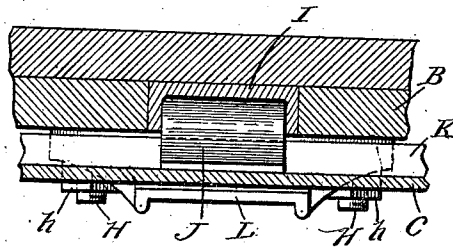


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

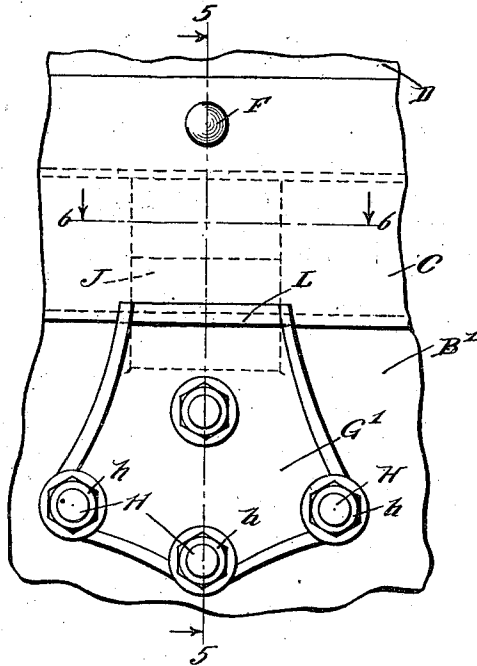


Fig. 5.

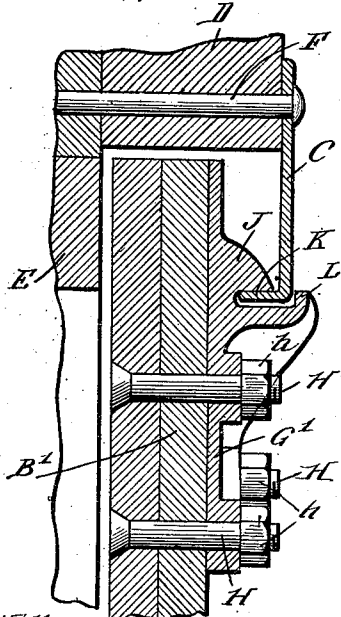
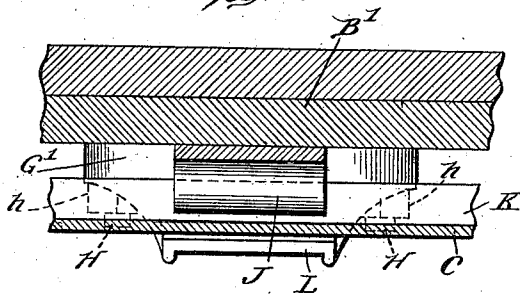


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD A. HILL, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHICAGO CAR DOOR COMPANY,
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TRACK AND HANGER FOR FREIGHT-CAR DOORS.

995,787.

Specification of Letters Patent. Patented June 20, 1911.

Application filed January 24, 1910. Serial No. 539,779.

To all whom it may concern:

Be it known that I, EDWARD A. HILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tracks and Hangers for Freight-Car Doors, of which the following is a specification.

My invention relates to a track and hangers adapted particularly for sustaining a freight car door of the sort which slides back and forth on the outside of the car.

The invention has for its primary object in particular to provide a very simple and economical construction for the hangers in apparatus of this sort; the novel construction of said hangers and the arrangement of the same in relation with the track bar and the door permitting the usual trolley wheels to be dispensed with and resulting in certain other advantages which will be hereinafter fully described.

The invention is illustrated in the accompanying drawings in which—

Figure 1 is a fragmentary side elevation of a freight car door. Fig. 2 a vertical section on line 2—2 of Fig. 1 looking in the direction of the arrows. Fig. 3 a sectional plan taken on line 3—3 of Fig. 2. Fig. 4 a fragmentary elevation showing a modification. Fig. 5 is a vertical sectional view taken on line 5—5 of Fig. 4, and Fig. 6 a sectional plan taken on line 6—6 of Fig. 4.

Like characters of reference indicate like parts in the several figures of the drawings.

Referring to the drawings, A represents the side of a freight car of ordinary construction; B the door which is suspended from the track bar C, in the manner to be hereinafter described, so that it slides back and forth on the outside of the car; D a block or timber secured to the side of the car above the door frame E; the block D being held in place and the track bar C secured to the block by means of the bolts F or other suitable securing means.

G, G are hangers secured to the door B by means of the carriage bolts H and nuts h. Obviously, any other suitable means might be employed for holding the hangers in proper position on the door.

In the first three figures the hanger G in each case is shown as formed with its upper end I offset inwardly, the door B having a recess which receives this offset portion. In

Figs. 4, 5 and 6 the hanger G' is straight and lies against the outer surface of the door B' all the way up. In other respects the hangers are substantially alike. That is to say, each of these hangers is formed with a projecting part J which is adapted to rest on some substantially horizontal part of the track bar so as to movably sustain the door on said track bar. Preferably, as shown, the track bar, indicated at C, is of L section and the projection J rests upon the inturned horizontal flange K of said L section bar.

In the construction and arrangement of the parts shown the door will be held in place, that is, held from slipping off the track bar by its proximity to the door frame E, when the door is closed, and to the side of the car, when the door is opened. I prefer, however, to provide means for limiting the inward movement of the door so as to make the engagement between the hanger and the track bar more secure and also so as to prevent the door from rubbing against the door frame or against the side of the car, as the case may be. Preferably, as shown, such means consists of an integrally formed lip L on the hanger which stands forwardly of the track bar C. In such case the hanger is formed, in effect, with a slot M which receives the track bar, the configuration of this slot conforming, generally speaking, to the shape of the track bar in such manner that the hanger is guided by the track bar and prevented from having side play in either direction, except such as is necessary to give a proper clearance.

Preferably the arrangement of the track bar is such that it covers or protects the space which necessarily intervenes between the top of the door and the block D or other adjacent part of the car, thus preventing rain, snow, dust, cinders, sparks and the like from entering the car. That is to say, the track bar C extends down some little distance beyond the top of the door. While this construction is preferable for the reasons above stated, my invention would doubtless have some utility were the parts differently arranged.

The hanger is also preferably formed with the offset at its upper end, as shown particularly in Figs. 2 and 3, the purpose of this being to give a better balance to the door, a firmer attachment to the hanger and also to narrow the door construction as a

whole. However, in this case also, some measure of the advantage of my invention might be retained by making the hanger straight, as shown in Figs. 5 and 6.

5 It is not in any event the purpose of the invention to prevent the tendency of the lower part of the door, when unfastened, to swing out a trifle from the car, which results from the arrangement of the hanger
10 on the outside of the door, as this slightly oblique position of the door facilitates its opening, especially when the cargo is loaded out close to the door in its closed position.

15 It is obvious that other modifications might be devised which would come within the scope and purpose of my invention; and therefore I do not limit myself to the particular forms, devices and constructions, or generally to the design of parts or portions
20 shown, except as such particularities are specifically made limitations upon certain of the claims.

The door construction above described may be set up by first securing the hangers to
25 the door, securing the track bar to the car and then slipping the hangers on to the end of the track bar. After this the usual strips N, or equivalent means for limiting the sliding movement of the door in opposite
30 directions may be attached to the side of the car.

The door is shown as provided with two hangers. It is obvious that any suitable

number of hangers might be used. It will be obvious that the lip L on the hanger not
35 only prevents the door from rubbing against the door frame or against the side of the car when the door is open, but also serves to keep the hanger in such relation with the track bar that it can not be displaced from
40 the latter should the track bar become loosened.

I claim:

1. The combination with a car, of a door, a hanger secured to the outside of the door
45 formed with a substantially horizontal slot below the upper edge of the door, and a track bar secured to the car above the door formed with an intumed substantially horizontal flange which projects into the slot in
50 the hanger.

2. The combination with a car, of a door, a hanger secured to the outside of the door
55 formed with a substantially horizontal slot, a track bar which is secured to the car above the door and is formed with an intumed substantially horizontal flange which projects into the slot in the hanger and an integrally formed lip on said hanger which
60 stands in front of said track bar for the purpose described.

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