

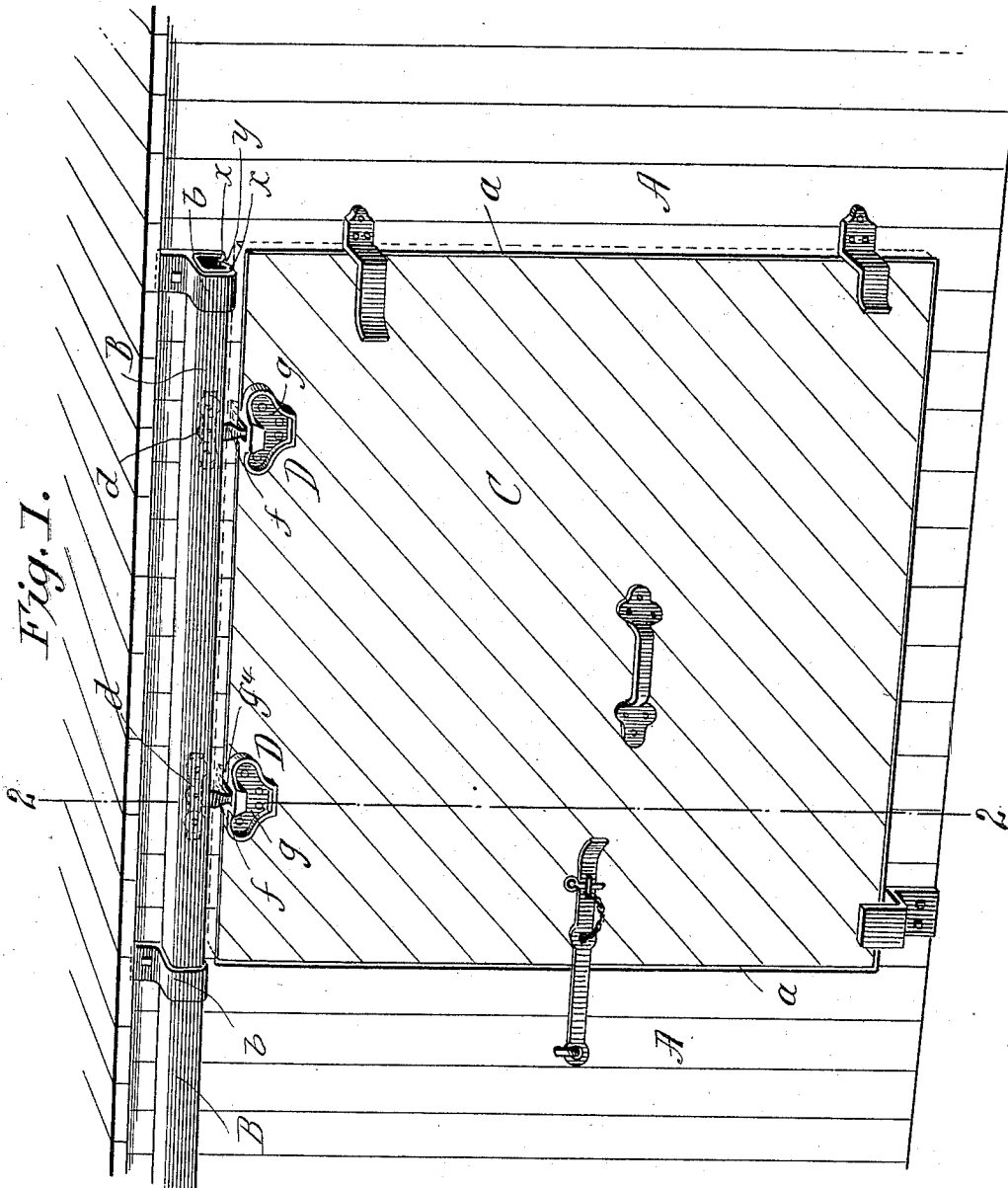
(No Model.)

2 Sheets—Sheet 1.

L. COBURN.
DOOR HANGER.

No. 537,408.

Patented Apr. 9, 1895.



Witnesses:
J. D. Garfield
H. I. Clemons

Inventor,
Lemuel Coburn
by Chapin & Co.,
attys.

L. COBURN.
DOOR HANGER.

No. 537,408.

Patented Apr. 9, 1895.

Fig. 2.

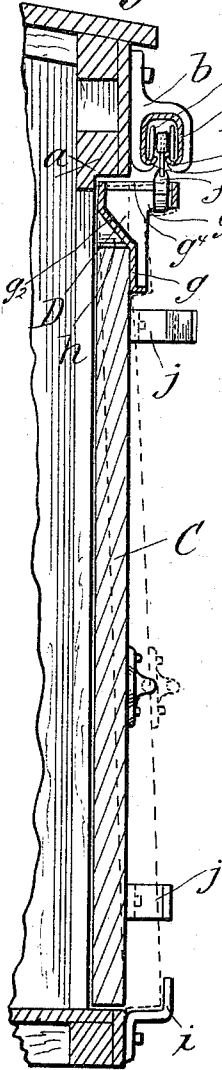


Fig. 3.

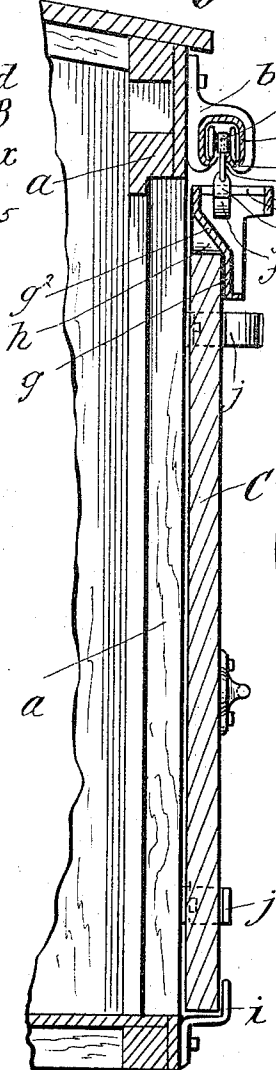


Fig. 4.

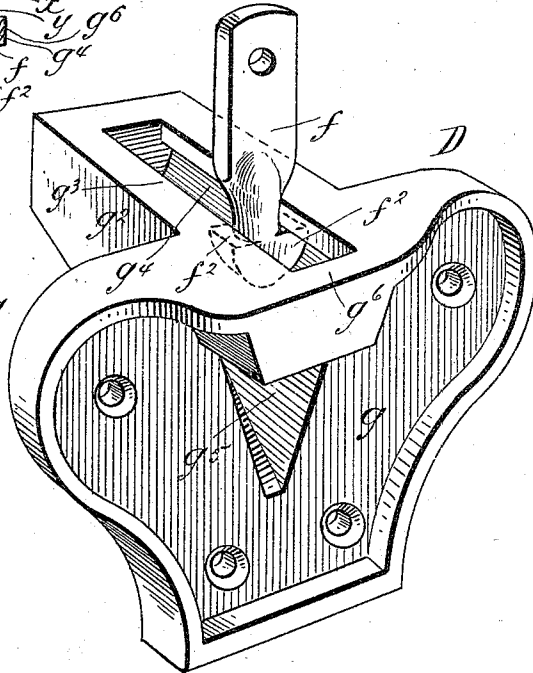
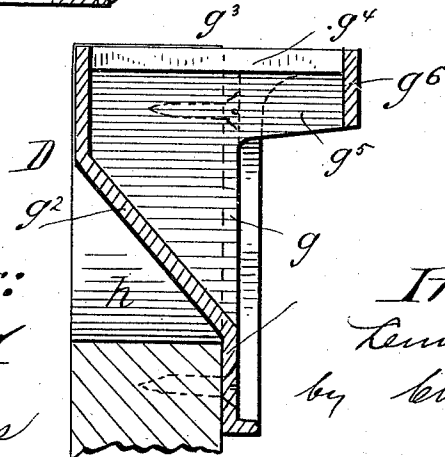


Fig. 5.



Witnesses:
J. R. Garfield
H. J. Clemons

Inventor,
Lemuel Coburn
by *Chapman & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

LEMUEL COBURN, OF HOLYOKE, MASSACHUSETTS, ASSIGNOR TO THE COBURN
TROLLEY TRACK MANUFACTURING COMPANY, OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 537,408, dated April 9, 1895.

Application filed May 3, 1894. Serial No. 509,906. (No model.)

To all whom it may concern:

Be it known that I, LEMUEL COBURN, a citizen of the United States of America, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Door-Hangers, of which the following is a specification.

This invention relates to constructions for sliding doors and trolley hangers therefor which are designed as improvements on the contrivances described and shown in Letters Patent of the United States to Coburn and Sumner, dated July 15, 1890, No. 432,225.

The invention consists in forms or constructions and combinations of parts all substantially as will hereinafter fully appear and be set forth in the claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view showing particularly the side of a freight car with the trolley and connections between it and the car door. Fig. 2 is a vertical section across the door, trolley, trolley connections and adjacent parts, the door being in its closed and flush position. Fig. 3 is a similar view showing, however, the door as drawn out from its flush position ready to be slid longitudinally away from the door opening. Fig. 4 is a perspective view on a larger scale showing the pendant for the trolley, and the door fixture, or bushing, which is engaged thereby. Fig. 5 is a vertical cross sectional view of the said door fixture, or bushing.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, A represents the side wall of a freight car having the door opening, *a*, above which on the outer side of the car the trolley track, B, is supported horizontally in the bracket, *b, b*.

C represents the door to fit closely within the jams, or casing, of the doorway.

Said trolley track, B, as shown, consists of a tube which is of a generally rectangular cross section having the lower edges curved in toward the median plane and then turned upward so that the bottom of the tube has a trough-way, *x*, at each side of the intermediate longitudinal slot, or opening, *y*. The said

trolley track should, manifestly, be of a length equal to about twice the width of the door. Each trolley, of which two are provided, consists in part of a pair of roller carriages, *d, d*, running in the trough-ways of the track, and also of the pendant, *f*, which is constituted in substance by a bar perforated through its upper portion to embrace the axle of the roller carrier and having at the bottom the cross-foot which provides two shoulders, *f², f²*, to have a supporting, as well as a laterally sliding, engagement with the bushing, D, one of which is provided in combination with each trolley and which will be now described as consisting of a peculiar hollow casting essentially comprising a front-plate, *g*, for attachment by screws, or otherwise, at the front of the car door, a rearwardly extended hollow body, *g²*, with a horizontal top wall, *g³*, which also stands forwardly beyond the plane of the front plate and which top wall has the transverse slot, *g⁴*, of less width than the distance between the extremities of the cross foot, *f²*, although its width is greater than the width of said foot. The car door is apertured at its upper edge, as seen at *h*, for the accommodation of the said hollow body so that when the face plate, *g*, is fastened on the front of the door the slot, or way, *g⁴*, for the engaging cross-foot of the pendant will have its extension both forward, and to the rear, of the front face of the door. See Sheet 2 of the drawings. The face plate, *g*, is apertured, as seen at *g⁵*, while the top wall, *g³*, is continuous across the front edge to form an end boundary *g⁵* of the slot, *g⁴*.

No provision is made, as will be apparent on inspection of Figs. 2 and 3, for any considerable degree of lateral movement of the pendant, but the relations of the pendant and bushing, D, are such that, as the door is moved laterally, it, and its bushing, slide relatively to the cross-foot of the pendant, which cross foot is always in a supporting and sliding engagement with the opposite parallel lips, bars, ribs, or flanges, as they may be variously regarded, at the top of the bushing or petticoat, and which in the particular design shown are constituted by the inner margins of the said slot, *g⁴*.

The lugs, *i, j, j*, shown on the side of the car are desirable as determining the extent of outward movement necessary for the car-door to carry it clear from the front face of the car, and to prevent excessive outward movement of the door, all preparatory to sliding it clear from the door-way.

The pendant is engaged with the bushing, *D*, by being turned quarter way around so that the cross-foot ranges along in line with the slot, *g*⁴, through the top wall so that the cross-foot may be carried below the under side of said top whereupon the pendant is returned to its position with the foot across the slot.

Usually in opening the door it is drawn forwardly at its bottom to its outward limit, as indicated by the dotted lines in Fig. 2. Its lower end support is now the fulcrum whereby to swing the door from its lower edge so that it, as a whole, assumes the position free, outside of, and parallel with, the front of the car.

While the novel devices have been more particularly illustrated and referred to as utilized for a freight car, they are manifestly, available for barns, sheds, warehouses, and other structures; and while the pendant is shown as combined with a certain kind of roller-carrier, substantially such as is illustrated in the patent of Coburn and Sumner, dated September 29, 1891, No. 460,501, which carrier in turn is shown as run on a certain trolley track, the pendant may, without departing from this invention be carried by a different construction of roller carrier; while the roller carrier may have, provided therefor, some construction of trolley track different from the one specifically shown.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. The combination with the car or other structure having the door-way, a trolley track above and outside of the plane of the door-way, roller carriers to run along said track and the pendants supported by said carriage having the cross foot, of the door to fit within said way and having at its upper portions metallic bushings, each of which essentially comprises a top wall a portion of which stands outwardly beyond the outer face of the door, and which has the transverse slot, *g*⁴, therethrough,—with the under boundaries of which the said cross foot of the pendant engages,—substantially as and for the purposes set forth.

2. The combination with the car with a door-way, a trolley track above and outside of the plane of the door-way, roller-carriers and pendants having the cross foot, *f*², *f*², of the door provided at its upper edge with the aperture, *h*, and having the bushings, *D, D*, each comprising the face-plate, *g*, rearwardly extended hollow body, *g*², which is set within said aperture, *h*, and provided with the top wall, *g*³, which forwardly overhangs the face-plate and which is provided with the slot, *g*⁴, under the side boundaries of which the opposite extensions of the foot have sliding engagements and which overhanging top wall has the portion, *g*⁶, forming an outer end boundary for said slot, all substantially as described and for the purposes specified.

LEMUEL COBURN.

Witnesses:

WM. S. BELLWS,
K. I. CLEMENS.