

P. G. EMERY.  
 GUARD CURTAIN FOR VESTIBULE CARS.  
 APPLICATION FILED FEB. 15, 1911.

1.109,744.

Patented Sept. 8, 1914.

Fig. 1

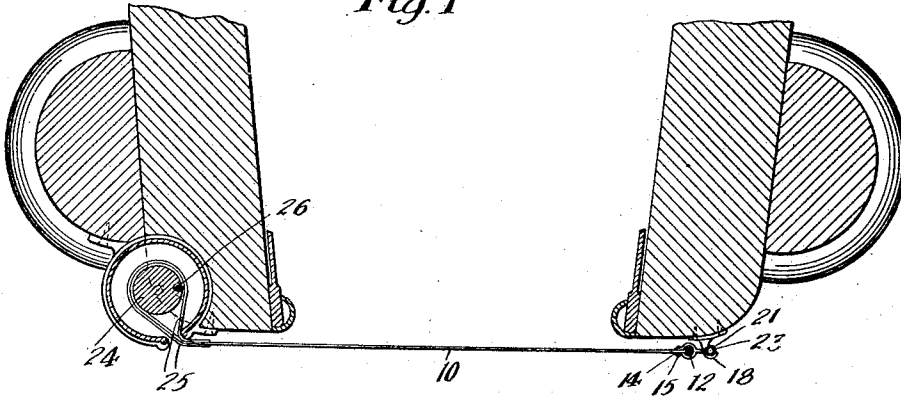


Fig. 2

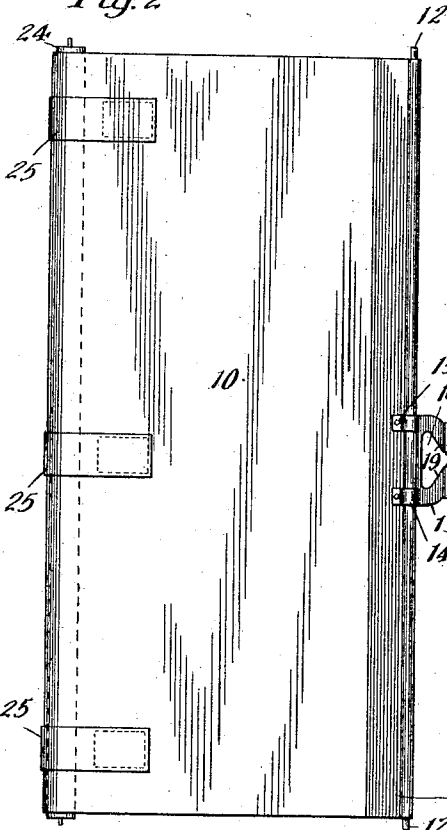


Fig. 4

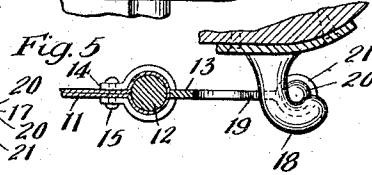
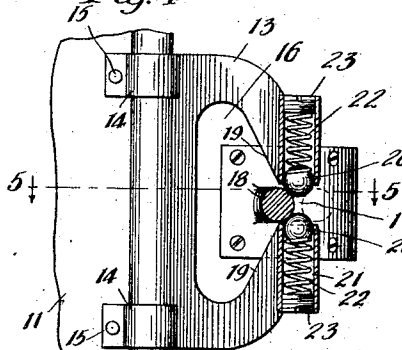


Fig. 6

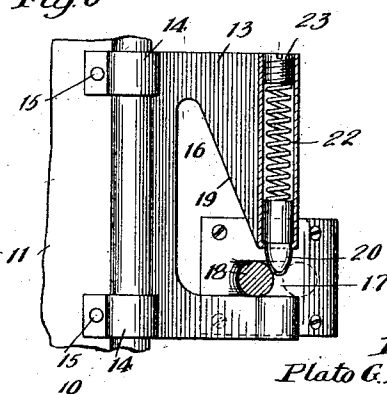
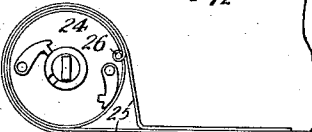


Fig. 3



Witnesses:

Wm. Geiger  
 Pearl Abrams.

Inventor:  
 Plato G. Emery

By Munday, Swarts, Adcock & Clark Attys

# UNITED STATES PATENT OFFICE

PLATO G. EMERY, OF CHICAGO, ILLINOIS.

GUARD-CURTAIN FOR VESTIBULE-CARS.

1,109,744.

Specification of Letters Patent.

Patented Sept. 8, 1914.

Application filed February 15, 1911. Serial No. 608,749.

*To all whom it may concern:*

Be it known that I, PLATO G. EMERY, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Guard-Curtains for Vestibule-Cars, of which the following is a specification.

This invention relates to guard curtains for vestibule cars to be suspended between the arch-plates of such cars when coupled together. In the modern practice one of these guard curtains, mounted on a vertical spring roller is supplied for each arch plate. to be extended and attached to a hook on the adjacent arch plate on the neighboring car when the two cars are coupled together, thus affording protection to the person and clothing of passengers going through the arch-plates from one car to the other. And the invention consists in the means of attachment of the curtain to the adjacent arch-plate at one end and to the spring roller at the other end, such attachment being of a simple and durable character, permanently operative, and not likely to get out of order, all of which will be more fully hereinafter set forth.

In the accompanying drawing, which forms a part of this specification, Figure 1 is a horizontal section taken through one of the curtains embodying my improvement, showing the curtain extended and attached to the two adjacent arch-plates as when two cars are coupled together; Fig. 2 shows a front elevation of the curtain extended but removed from both of the arch-plates; Fig. 3,—upon a larger scale—, is an end view of the spring curtain roller to assist in illustrating the means of attaching the curtain to said roller by the reinforcing loop; Fig. 4,—also upon a larger scale—, is a view, partly in section, of the handle for attaching the curtain to the adjacent arch plate; Fig. 5 is a horizontal section of the same taken on the line 5—5, of Fig. 4; and Fig. 6 shows a modification of the side handle illustrated in Fig. 4.

Referring to the said drawing, the guard-curtain 10, is provided at its free end with the usual hem, 11, and inclosed rod 12. The handle 13, having the split lugs 14, 14, is rigidly secured to the edge of the curtain, preferably, by slipping the lugs over the hem and its inclosed rod and applying rivets 15, 15. The handle, 13, has an opening

16, extending up and down to accommodate cars with platforms on differing levels, a gate 17 guarded by a friction device, through which guarded gate it is designed that the hook, to be presently described, may escape when the tension or pull on the curtain becomes excessive, thus permitting the curtain to be gathered home by the spring roller, as for example when the cars are uncoupled and separated. The hook, attached to the adjacent arch-plate, is indicated at 18, and the gate 17, in the handle is made wide enough for the hook to pass out freely except for the friction guard device, the inner front edges of the opening, 16, being preferably inclined as at 19, to guide the hook to the gate from whatever position due to differing levels of the platforms it may happen to occupy within said opening. The friction guard consists of the spring borne balls or rounded surfaces 20, each housed in a tube or cavity 21, and backed by a spring 22 which may have an adjusting means or screw 23 for regulating the spring pressure. The ball shoulders on the mouth of its cavity so as to be retained from escape, and projects beyond said mouth to engage the hook. These two spring-thrust balls one at each side of the gate or pass serve to hold the hook until power sufficient to depress the springs is exerted, whereupon the hook will crowd through. It will be noted that this holder is not wholly a spring tension contrivance but a compound spring and friction contrivance; that it is simple in construction and operation, and has no part that may easily break under strain. In the modification shown at Fig. 6 instead of the two balls and cavities a single spring-thrust round-end plug coöperates with a stationary plane surface to produce a similar result. The other edge of the curtain 10, is, or may be, attached to the spring roller, 24, in the usual manner, winding up the spring when the curtain is extended or unwound, and winding up the curtain when the spring is recoiling after the common fashion of such apparatus. To protect against strains to which, as before indicated, these guard-curtains are often subjected I provide a safety loop or loops, 25 of any desired number or width, of leather or other flexible material, sewed or otherwise secured to the curtain at each face thereof and passing around the curtain roller as indicated. It is preferred to have the loop take the strain of the un-

winding curtain before the curtain is entirely unwound so that any stretching that takes place may not tend to tear the curtain loose from the roller. The usual fastening of the curtain to the roller is indicated at 26, see Figs. 1 and 3.

By means of the peculiar spring and friction guarded gate or hold for the hook at one end of the curtain and the loop guarded attachment of the curtain to its roller at the other end thereof, all danger of destruction of the curtain by the strains that occur, as sometimes happens when the cars are uncoupled and separated without unhooking the curtain, is obviated. Indeed, with this construction of curtain it is quite safe to let the curtain take care of itself in uncoupling the cars, though to save wear it is of course better to unhook the curtain and permit it to roll up gently on its roller.

Having thus described my invention I claim:—

1. A guard-curtain for railway-car vestibules comprising in combination, a curtain secured at one edge to a spring roller, the attachment being reinforced by a loop surrounding the roller and fastened to the curtain, a handle secured to the other edge of the curtain and having a spring-thrust friction guarded gate forming an opening in the said handle for receiving, frictionally retaining, and permitting, upon greater than the normal strain due to the spring in the spring roller, the escape of the holding hook, said reinforcing loop being adapted to withstand abnormal strains and to prevent tearing of the curtain from the roller, substantially as specified.

2. A latching device for railway-car vestibule guard-curtains which is adapted to cooperate with a hook, said device including a handle attachable to the free edge of the curtain and extending in a vertical plane, said handle having an enlarged opening through which the hook is adapted to be placed transversely, the opening being provided with a contracted mouth, the opposite edges of which are movably mounted in a vertical line and adapted to separate to release the hook upon more than normal pull, substantially as specified.

3. A latching device for railway-car vestibule guard-curtains which is adapted to co-

operate with a hook, said device including a handle attachable to the free edge of the curtain and extending in a vertical plane, said handle being provided with an enlarged opening adapted to receive the hook transversely therethrough, said opening having a contracted mouth, one edge of said mouth comprising a spring-thrust member adapted to be moved in a vertical line by the hook to release the latter upon more than normal pull, substantially as specified.

4. A latching device for railway-car vestibule guard-curtains, adapted to cooperate with a hook and consisting of a handle attachable to the edge of the curtain, and provided with an opening to receive the hook, said opening being provided with a friction guarded gate for the release of the hook upon more than the normal pull, said friction guarded gate comprising spring-thrust members adapted to be laterally moved by the hook, and springs engaging said members, substantially as specified.

5. A latching device for railway-car vestibule guard-curtains, adapted to cooperate with a hook and consisting of a handle attachable to the edge of the curtain and provided with an opening to receive the hook, said opening being provided with a friction guarded gate for the release of the hook upon more than normal pull, said friction guarded gate comprising a spring-thrust surface adapted to be laterally moved by the escaping hook, and means for adjusting the spring-thrust, substantially as specified.

6. A latching device for railway-car vestibule guard-curtains which is adapted to cooperate with a hook, said device including a handle attachable to the free edge of a curtain, said handle having an enlarged opening through which the hook is adapted to be placed transversely, the opening having a contracted mouth, said handle having also an inclined wall adapted to guide the hook toward said contracted mouth, substantially as specified.

Subscribed in the presence of two witnesses this 8th day of February, 1911.

PLATO G. EMERY.

Witnesses:

PEARL ABRAMS,  
H. W. V. MUNDAY.