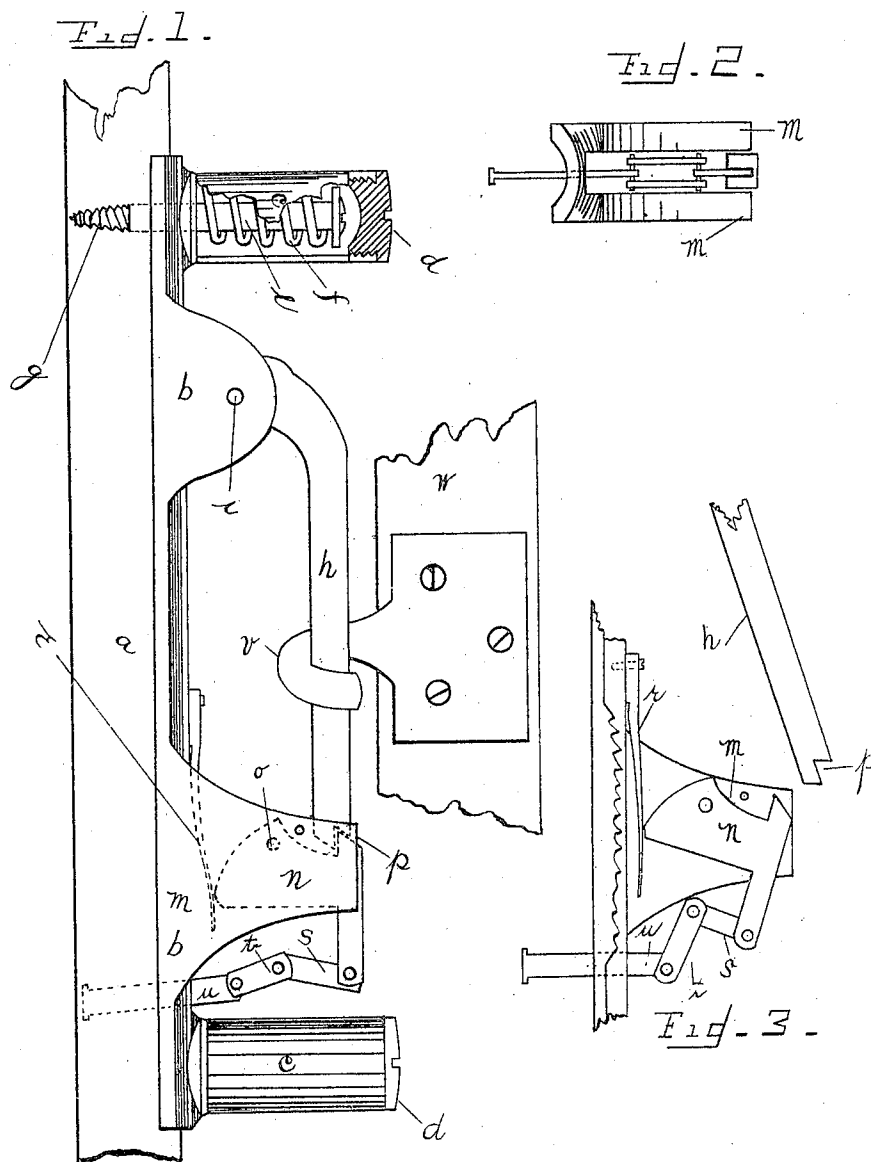


No. 804,310.

PATENTED NOV. 14, 1905.

H. L. GARRETT.
FASTENER FOR VESTIBULED CAR CURTAINS.
APPLICATION FILED MAR. 24, 1905.



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FASTENER FOR VESTIBULED-CAR CURTAINS.

No. 804,310.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed March 24, 1905. Serial No. 251,813.

To all whom it may concern:

Be it known that I, HARRY L. GARRETT, a citizen of the United States, residing at Boone, in the county of Boone and State of Iowa, have invented certain new and useful Improvements in Fasteners for Vestibuled-Car Curtains, of which the following is a specification.

My invention relates to improvements in fasteners for vestibuled-car curtains.

On vestibuled trains the openings between the cars are closed by curtains suspended horizontally upon vertically-hung spring-rollers, the spring-roller which sustains the curtain being rigidly attached to one car and the curtain stretched across and made fast to the frame upon the platform of the opposite car by means of a handle or fastener upon the curtain resting within a hook upon the opposite car. The curtain after being stretched across and hung from one car to the other has a tendency to become rolled upon the spring-roller upon which it is hung, and a strong metal handle or fastener has generally been used upon that side of the curtain opposite the spring-roller and hooked upon the frame of the opposite car-platform. My invention relates to improvements of this fastener.

With fasteners heretofore used there has been much breakage either of the roller, fastener, or curtain when switching or detaching cars on account of negligence of the employee or, from exigency of the occasion, the employee failing to go upon the platform to detach the fastener from its hook, this neglect resulting, necessarily, in the breakage of some of the parts. Also the cars of trains frequently become detached while in motion from accidental causes, and if vestibuled the curtains are generally torn or rollers broken where the old method of fastening the vestibule-curtain was employed; but by use of my invention these damages are avoided.

I employ metal as the material for the manufacture of my newly-invented curtain-fastener, and it is simple in construction and is attended by very small expense above curtain-fasteners heretofore used.

The object of my invention is to provide a curtain-fastener so constructed that it will become released at the proper time by the movement of the cars alone, one which will perform the function of maintaining the connection of one vestibuled car to the opposite car with certainty, but which by means of its construction will allow the curtain to be released without damage to the curtain or any

of its connecting parts upon the moving apart of the cars, all without the intervention of any person or employee.

My invention is one which eliminates any loss or damage from neglect of the employee, since it is not necessary for him to manually unhook the fastener at time of switching or "cutting out" a car from the train, as has been necessary heretofore.

With this object in view my invention consists of a suitable frame-carrying mechanism adapted to release its hooking-pin from application of a certain degree of applied force exerted upon a curtain member adjacently disposed, such force coming laterally upon the curtain member from a source of power greater than the force exerted upon such curtain member by the elastic force of the springs of the curtain-roller, such greater power being the force of the two cars pulling apart to which the curtain is attached.

By use of my invention the attachment of the curtain of one car to the opposite car is made certain and maintains the curtain in a stretched position until unhooked, and the moving apart of the two cars is certain to unlock the hooking-pin readily and releases the curtain without any breakage of parts.

My invention embodies novel features and arrangement of parts and is fully illustrated by the drawings herein, in which—

Figure 1 is a side view of my curtain-fastener mounted upon the curtain member. Fig. 2 is an end view of a part of the frame of my invention, illustrating the arrangement of the detaining-bars. Fig. 3 is a transverse vertical section with side of the frame removed, to show interior mechanism and hooking-pin released.

In Fig. 1, *a* represents the curtain member upon which one end of the vestibuled-car curtain is suitably mounted and upon which is compressibly mounted the frame *b* of my invention, and upon the frame *b* is integrally mounted the cylinders *c c*. These cylinders are provided with screw-caps *d*, and one cylinder has a part of its shell removed to show the screw *e*, which depresses the spiral spring *f*. The screw enters the curtain member at *g* and controls the degree of tension of the spiral springs. The cylinders *c c* and their interior parts are identical in construction, and the frame *b* is free to move away from the curtain member *a* subject to the resistance interposed by the springs *f*.

Upon the frame *b* is mounted the hooking-

pin *h* free to swing at one end upon the pivot *i*, and between the standards *m m* of the frame is placed the lever *n*, pivotally hung at *o*. The free end of the hooking-pin is chamfered to engage the lever *n* at their points of contact, as shown at *p*, and longitudinally upon the frame is secured the spring-plate *r*, which has a compressible bearing upon the lever *n*, and upon the lever *n* is attached the series of detaining-bars *s*, *t*, and *u*, the latter being integral with the curtain member *a* and free to pass through the frame *b* to secure an anchorage upon said curtain member. The hook upon which the hooking-pin *h* is secured is shown at *v*, the latter being attached in a suitable manner to the frame *w* of an opposite car.

In operation my invention being used upon the curtain of a vestibuled car and the curtain having been drawn horizontally across to an adjacent car and the hooking-pin *h* of my invention having been placed upon the hook *v* of the opposite car, the hooking-pin *h* and all other parts of my fastener will then occupy the positions shown in Fig. 1. The resistance interposed at this time by the spiral springs *f* has a tendency to prevent the separation of the frame *b* from the curtain member *a*, and the degree of this resistance can be increased or decreased at will by shortening or lengthening the spring-space within the cylinders by means of the screws, as is evident. One end of the lever *n* at this time overlaps the end of the hooking-pin *h*, as shown at *p*, and the spring *r* sustains the lever *n* in this position, thereby insuring the constant relative position of these parts until a sufficient lateral force has been applied upon the curtain member to overcome the pressure of the springs *f*. The elastic force of the springs upon the curtain-roller is not sufficient to overcome the resisting force of these springs *f*, and while the adjacent cars are not detached there is no other power which intervenes to augment the force of said springs of the curtain-roller; but when a car is detached from the train, which is connected to its adjacent car by my fastener, the momentum of these two cars while moving apart exerts the necessary power and augments the force of the springs of the curtain-roller and causes a greater lateral force to be exerted upon the curtain member *a* than had theretofore been exerted upon it and sufficient in degree to depress the springs *f* within the cylinders *cc*. As the springs *f* become depressed there is a consequent movement of the frame *b* from the curtain member *a* or lateral displacement, and since the detaining-bars *s*, *t*, and *u* have a practical anchorage upon the curtain member *a* the lateral displacement of the frame from the curtain member necessarily swings the lever *n* and causes its upper extremity to recede in a longitudinal direction from the hooking-pin *h*, and thereby

unlocks or releases the hooking-pin from its contact at *p* with the lever *n*, as shown in Fig. 3. The release of the hooking-pin *h* permits the car-curtain to be released from the hook upon the frame of the opposite car simply by momentum of the cars themselves in moving apart.

It will be noted that the degree of resisting force of the springs *f* is entirely within my control, and I am able readily to gage this resistance and regulate it as may be required to suitably overcome the elastic force of the springs of the curtain-roller.

What I claim as my invention is—

1. In a fastener for vestibuled-car curtains of the character described, the combination with a resiliently-actuated curtain member of a car and a hooking member of an adjacent car, of a curtain-fastener consisting of a suitable frame, a hooking-pin mounted and adapted to lock thereon and adapted to engage said hooking member, means for causing the compression of the frame against the curtain member to a degree of force greater than that exerted by the resiliently-actuated curtain member, and means adapted to unlock the hooking-pin upon an increased lateral force being applied upon the curtain member and frame.

2. In a fastener for vestibuled-car curtains of the character described, the combination with a resiliently-actuated curtain member of a car and a hooking member of an adjacent car, of a curtain-fastener consisting of a suitable frame, a hooking-pin mounted and adapted to lock thereon and adapted to engage said hooking member, means for causing the compression of the frame against the curtain member to a degree of force greater than that exerted by the resiliently-actuated curtain member, and means adapted to unlock the hooking-pin upon the application of an additional force upon the curtain member and frame coming from some extraneous source.

3. In a fastener for vestibuled-car curtains of the character described, the combination with a vestibuled-car curtain one end of which is hung upon a contractibly-adjusted curtain-roller suitably mounted upon the frame of a car-platform the opposite end of said curtain being suitably mounted upon a curtain member, and a hooking member suitably positioned upon the frame of an oppositely-disposed car-platform, of a suitable fastener-frame to support its mechanism, said frame to be contractibly mounted upon the adjacently-disposed curtain member, a hooking-pin upon the frame adapted to be locked thereon and adapted to make engagement with said hooking member, means to permit the escape of the hooking-pin from the hooking member upon lateral displacement of the frame and curtain member, and means to prevent the lateral displacement of the frame and curtain member except upon the application thereto

of a force foreign and additional to the contractile force of the curtain-roller.

4. In a fastener for vestibuled-car curtains of the character described, the combination with a vestibuled-car curtain one end of which is hung upon a contractibly-actuated curtain-roller suitably mounted upon the frame of a car-platform the opposite end of said curtain being suitably mounted upon a curtain member, and a hooking member suitably positioned upon the frame of an oppositely-disposed car-platform, of a suitable fastener-frame to support its mechanism, said frame to be contractibly mounted upon the adjacently-disposed curtain member, a hooking-pin upon the frame adapted to be locked thereon and adapted to make engagement with said hooking member, means to cause the frame to be compressed against the curtain member in a degree of applied force greater than the laterally-displacing force exerted upon the curtain member by the contractibly-actuated curtain-roller, and means to release the hooking-pin from its locked position by an applied extraneous force additional to the contractile force of the roller-curtain, the degree of such augmenting force being sufficient to overcome the contractile force of the frame upon the curtain member.

5. In a fastener for vestibuled-car curtains of the character described, the combination with a vestibuled-car curtain one end of which is hung upon a contractibly-actuated curtain-roller suitably mounted upon the frame of a car-platform the opposite end of said curtain being suitably mounted upon a curtain member, and a hooking member suitably positioned upon the frame of an oppositely-disposed car-platform, of a suitable fastener-frame to support its mechanism, said frame to be contractibly mounted upon the adjacently-disposed curtain member, a hooking-pin upon the frame adapted to be locked thereon and adapted to make engagement with said hooking member, means to sustain the hooking-pin in a closed or locked position during the period while the contractile force of the frame against the curtain member continues to be exerted in a de-

gree greater than the force exerted by the contractibly-actuated curtain-roller upon the curtain member, and means permitting the escape of said hooking-pin from its frame-locked position whenever a laterally-displacing force is applied to the curtain member and frame greater than the contractile force of the frame with the curtain member.

6. In combination with a contractibly-actuated curtain-roller, the curtain and curtain member of a vestibuled car and a hooking member of an adjacent car, of a fastener for a vestibuled-car curtain, consisting of a suitable frame, a hooking-pin mounted and adapted to be locked thereon and adapted to engage the hooking member, means for compressing the frame against the curtain member, means for regulating the compression to a degree greater than the contractile force of the curtain-roller upon the curtain member, and means for releasing the hooking-pin when a lateral force is applied upon the curtain member from any foreign source, which, added to the contractile force of the curtain-roller upon the curtain member will be greater in degree than that of the compressible force of the frame against the curtain member.

7. In a fastener for vestibuled-car curtains the combination with a car-curtain, its contractibly-mounted roller, its curtain member and the hooking member of an adjacent car, of a curtain-fastener consisting of a suitable frame, the hooking-pin thereon adapted to engage said hooking member, the cylinders upon the frame, the screw and spring within the cylinders, said screws being adapted to regulate the resistance of the springs; the controlling and detaining lever *n* with its contacting spring *r* and detaining-bars *s*, *t* and *u*, the frame being compressibly mounted upon the curtain member, substantially as shown.

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

HARRY L. GARRETT.

Witnesses:

ARTHUR STURGES,
GEORGE WILCOX.