No. 873,091. PATENTED DEC. 10, 1907.

H. M. ROBERTSON.

AUTOMATIC UNCOUPLING HANDLE FOR VESTIBULE CURTAINS.

APPLICATION FILED SEPT. 13, 1907.

2 SHEETS—SHEET 1.

Fig. 1

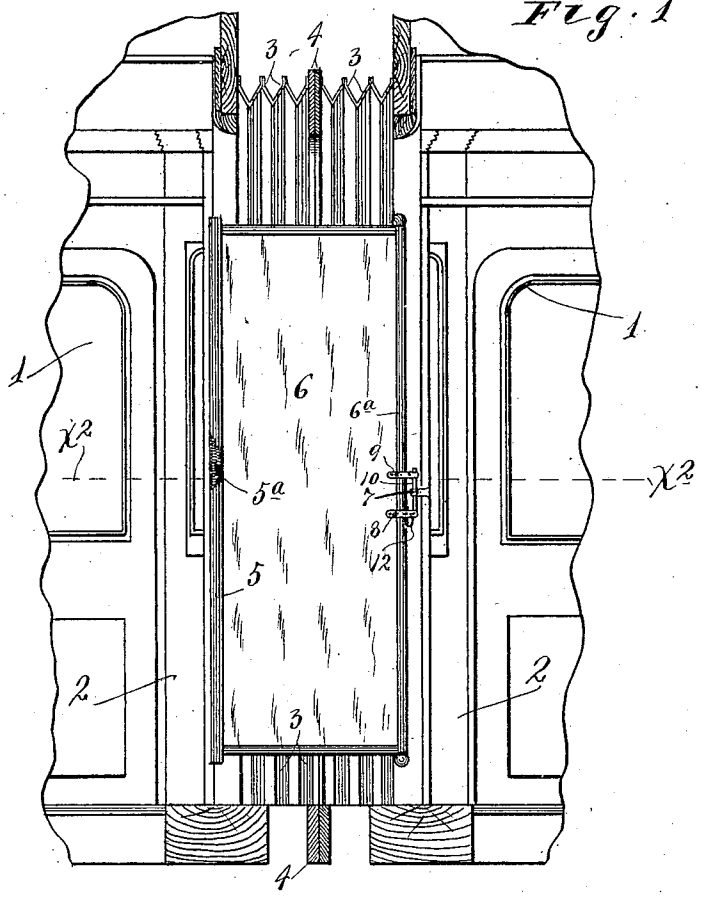
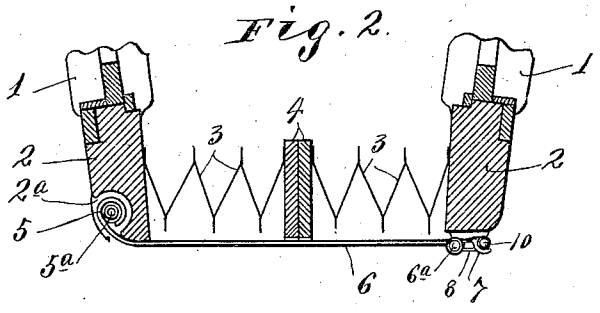


Fig. 2.



Witnesses.
Harry Opsahl.
Malie Hoel.

Inventor.
Henry M. Robertson.
By his Attorneys.
Williamson & Merchant

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 873,091. PATENTED DEC. 10, 1907.

H. M. ROBERTSON.

AUTOMATIC UNCOUPLING HANDLE FOR VESTIBULE CURTAINS.

APPLICATION FILED SEPT. 13, 1907.

2 SHEETS—SHEET 2.

Fig. 3

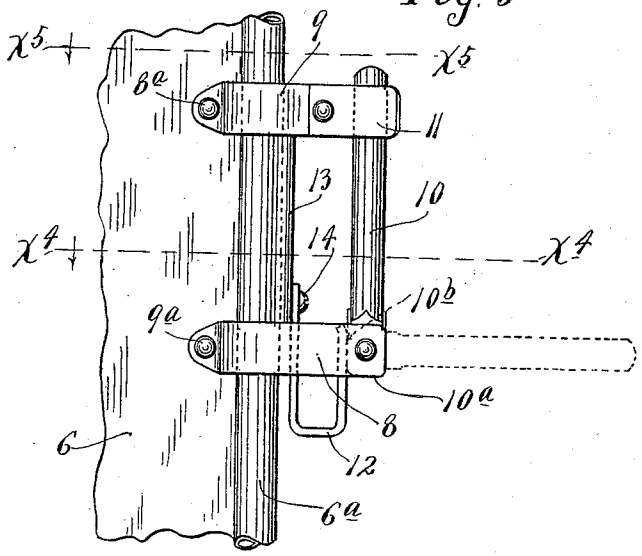


Fig. 4

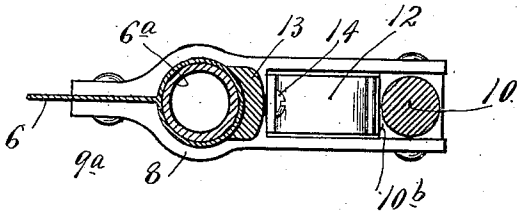
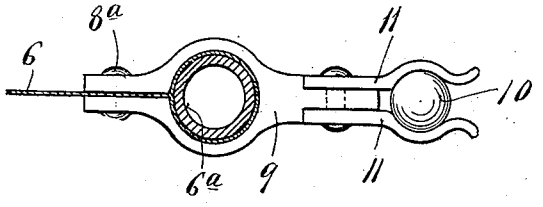


Fig. 5



Witnesses.
Harry Opsahl.
Malie Hoel.

Inventor.
Henry M. Robertson
By his Attorneys
Williamson Merchant

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY MILLS ROBERTSON, OF ST. PAUL, MINNESOTA.

AUTOMATIC UNCOUPLING-HANDLE FOR VESTIBULE-CURTAINS.

No. 873,091. Specification of Letters Patent. Patented Dec. 10, 1907.

Application filed September 13, 1907. Serial No. 392,811.

To all whom it may concern:

Be it known that I, HENRY MILLS ROBERTSON, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Automatic Uncoupling-Handles for Vestibule-Curtains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to guard curtains for use on the vestibules of coaches, and has for its object to provide an automatic uncoupling handle therefor.

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

A vestibule curtain, as is well known, is usually secured to the vestibule of one coach at one edge by means of a spring mounted curtain rod, the tension of which tends to wind up the curtain, while its free end is arranged to be detachably coupled to the vestibule of the connected coach, usually by a handle on said curtain, that is interlocked with a hook on the vestibule to which the curtain is detachably secured. In practice a large number of curtains are torn to pieces by separation of the coaches while the curtain is connected to the two vestibules. Brakemen and others in charge of the handling of coaches in switch yards and elsewhere, very frequently forget to uncouple the curtains when they uncouple the coaches, and this is the most frequent cause of the tearing of the curtains by the separation of the coaches.

My invention provides what I designate as an automatic uncoupling handle which is preferably applied to the free edge of the curtain and is arranged to be engaged with a hook or other holding device on the coach vestibule. This improved handle, under such strain as is applied thereto by the spring mounted curtain rod, will remain closed and, hence, may be used as an ordinary handle for pulling out the curtain into operative position, and, furthermore, the said handle will not open up as long as the two coaches remain coupled together. The said handle will, however, automatically open up and, hence, release the free edge of the curtain from the coöperating uncoupling hook under considerably less strain than that required to tear or rip the curtain. Hence, it follows that if the curtain remain coupled to the two vestibules while the coaches are pulled apart, the curtain will be automatically released, thus avoiding the tearing or other destruction thereof.

The improved automatic uncoupling handle is shown as applied in working position in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in vertical section, taken longitudinally through the central portion of two coupled coach vestibules. Fig. 2 is a horizontal section taken approximately on the line x^2 x^2 of Fig. 1. Fig. 3 is a detail view in side elevation, showing a portion of a vestibule curtain and showing in detail my improved automatic uncoupling handle. Fig. 4 is a horizontal section taken on the line x^4 x^4 of Fig. 3; and Fig. 5 is a horizontal section taken on the line x^5 x^5 of Fig. 3.

The numeral 1 indicates the coupled vestibule of two coaches, the same having the usual passages formed through frames 2.

The numeral 3 indicates the extensible corrugated vestibule aprons that are provided with the customary wearing frames 4.

In the customary arrangement, each vestibule frame 2, at the left hand side with respect to a person standing in the car and looking out through the vestibule, is recessed at 2^a, and in this recess is mounted a spring actuated curtain roller 5 to which is attached a vestibule curtain 6. This rod 5 is subject to the usual torsional spring 5^a. Also in the customary arrangement, each vestibule frame 2 is provided on the right hand side with respect to a person standing in the coach and looking out through the vestibule, with a hook 7 to which a curtain handle secured to the free edge of the curtain is adapted to be secured.

My improved automatic curtain handle, as illustrated in the drawings, comprises a pair of vertically spaced clamping brackets 8 and 9 and a bolt 10, which latter is pivoted to the lower bracket 8 and is adapted to be frictionally held by a pair of curved spring prongs 11 secured to the projecting end of the upper bracket 9. As shown, the curtain 6, at its free edge, is provided with a vertically extended reinforcing tube 6^a around which the edge of the curtain is secured, and the said brackets 8 and 9 are split

or formed with prongs that are adapted to embrace and clamp the said tube 6^a and the free edge of the curtain 6. Rivets 8^a and 9^a respectively, serve to clamp the prongs of the brackets 8 and 9 onto said tube and curtain.

The shank or pivoted end of the lock bolt 10 is square or made angular, as indicated at 10^a and 10^b, and these surfaces 10^a and 10^b are adapted to be engaged by the free end of a U-shaped spring 12, the other end of which, as shown, is rigidly secured to a metallic wearing strip 13, by means of a screw 14. The wearing strip 13 is rigidly secured to the tube 6^a and to the brackets by any suitable means.

When the lock bolt 10 is turned into its open position, as shown by dotted lines in Fig. 3, the free end of the spring 12 engages its flat end surface 10^a and holds the same in that position under such tension that considerable force is required to move the said bolt into a closed position. When the said bolt is moved into its closed position, as shown by full lines in all of the views of the drawings, the free end of the spring 12 engages the flat end surface 10^b of the said bolt with such tension that considerable force is required to move said bolt from its closed position. Furthermore, the curved clamping prongs 11, acting upon the free end of the lock bolt, yieldingly hold the said lock bolt in its closed position with considerable force. The combined force of the spring 12 and of the spring prongs 11 should be such as to hold the lock bolt in its closed position, against the tension of the spring actuated curtain roller. As already indicated, however, their force should be such that they will permit the lock bolt to be moved into an open position without tearing or damaging the curtain whenever the two cars to which the curtain is applied are pulled apart.

The device described is of small cost and may be easily applied to the ordinary curtain equipment of coach vestibules. In actual practice it has been found highly efficient for the purposes had in view.

What I claim is:

1. The combination with a vestibule curtain and a spring actuated roller attached to one edge thereof, and a handle applied to the free edge of said curtain and having a spring held pivoted lock bolt adapted to be opened by excessive pressure, substantially as described.

2. The combination with a vestibule curtain, of a handle comprising vertically spaced brackets secured to the free edge of said curtain, a lock bolt pivoted to one of said brackets, and spring clamping prongs applied to the other of said brackets and engageable with the free end of said lock bolt to yieldingly hold the same in normal position, substantially as described.

3. The combination with a vestibule curtain, of a pair of vertically spaced brackets rigidly secured to the free edge thereof, a lock bolt pivoted to one of said brackets and having at its pivoted end flat surfaces 10^a—10^b, a spring secured in respect to said brackets and operative on the said surfaces 10^a and 10^b of said lock bolt to yieldingly hold the same, respectively, in open and closed positions, and spring prongs applied to the other of said brackets and engageable with the free end of said lock bolt to yieldingly hold the same in a closed position, substantially as described.

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

HENRY MILLS ROBERTSON.

Witnesses:
H. D. KILGORE,
MALIE HOEL.