J. D. HEATER.

FASTENING DEVICE FOR CURTAINS.

APPLICATION FILED OCT. 3, 1914.

**1,122,390.** Patented Dec. 29, 1914.

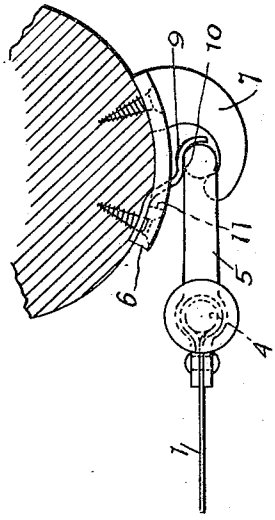



Fig. 2.

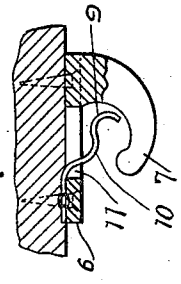



Fig. 3.

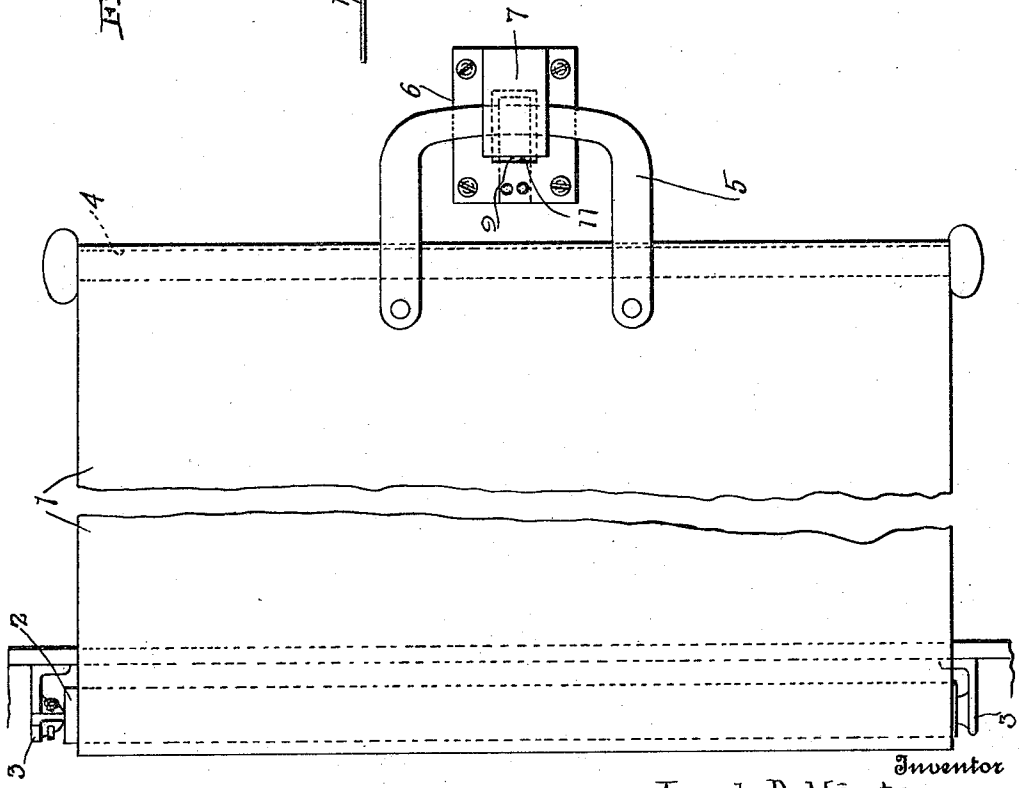



Fig. 1.

Inventor

Jacob D. Heater,

Witnesses

Howard Walmsley.

R. M. Miller

By Toulmin Reed & Toulmin

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

JACOB D. HEATER, OF DAYTON, OHIO, ASSIGNOR TO THE BARNEY AND SMITH CAR COMPANY, OF DAYTON, OHIO, A CORPORATION OF WEST VIRGINIA.

## FASTENING DEVICE FOR CURTAINS.

1,122,390. Specification of Letters Patent. Patented Dec. 29, 1914.

Application filed October 3, 1914. Serial No. 864,726.

*To all whom it may concern:*

Be it known that I, JACOB D. HEATER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Fastening Devices for Curtains, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to fastening devices for curtains and the like, and it is designed more particularly for use in connection with vestibule curtains for railway trains.

On vestibuled trains it is customary to cover the bellows-like diaphragms which extend between the adjacent ends of the vestibules of the two cars with curtains, these curtains forming the walls of a passageway extending between the two cars. These vestibule curtains are usually mounted on spring rollers which are supported on one of the vestibules. When the cars have been coupled together, the curtain is drawn across the diaphragm and made fast on the vestibule of the other car. When the cars are uncoupled, it is necessary to release the curtains from their fastening devices to prevent injury thereto, and it not infrequently happens that the trainman will fail to release the fastening devices for the curtains when the cars are separated, and, as a result, the curtains are damaged, sometimes entirely destroyed.

The object of the present invention is to provide a fastening device which will normally hold the curtain in its extended position across the diaphragm but which will yield when unusual strain is imposed upon the curtain, and thus release the curtain before it is injured.

A further object of the invention is to provide such a device which will be simple and inexpensive in its construction, and efficient in its operation.

In the accompanying drawings Figure 1 is an elevation of a curtain, partly broken away, showing the fastening device applied thereto; Fig. 2 is a plan view of a portion of the curtain and the fastening device therefor; and Fig. 3 is a plan view of a slightly modified form of catch.

In these drawings I have illustrated one embodiment of the invention and have shown the same as applied to a vestibule curtain of a well known construction. This curtain is shown at 1 in Fig. 1 and is mounted in the usual manner upon a spring-actuated curtain roller 2 which is vertically arranged and mounted in brackets 3 secured to suitable parts of the vestibule structure. At its other or free end the curtain is provided with a rod 4 to which is secured a handle 5 by means of which the curtain is unwound from the roller and stretched across the space between the two vestibules. This handle is usually utilized as one member of the fastening device and it may be so used in connection with the present invention. When so used the vertical portion of the handle constitutes a fastening bar which cooperates with a catch to hold the curtain in its extended position. This catch is of such a character that it will hold the curtain against rearward movement due to the action of the spring roller, but will release the handle or fastening bar, and thus disconnect the curtain from the car on which the catch is mounted, when unusual strain is imposed upon the curtain, as when the cars have been uncoupled and are separated without releasing the curtain. The catch may be of various forms, but as here shown it comprises a base 6 adapted to be secured by means of screws, rivets, or otherwise to a suitable part of the vestibule structure, such for example as one of the posts forming the doorway at the end of the vestibule. This base has rigidly secured thereto, and, in the present instance formed integral therewith, a hook-like finger 7 which extends lengthwise of the base plate toward the end of the car, that is, toward the curtain, which is mounted on the other car. The free end of the finger is turned inward, toward the base plate, so that its inner surface extends partially across the space between the finger and the base and obliquely to the line of movement of the fastening bar as it moves into or out of the catch. The end of the finger is, however, spaced a sufficient distance from the base to permit of the passage of the fastening bar. A spring 9 is arranged to yieldably engage the fastening bar and hold the same firmly in engagement with the obliquely arranged portion of the finger, which portion forms a seat for the bar and offers sufficient resistance to its outward movement to prevent its being drawn out of the catch by the action of the spring roller. Preferably,

the spring itself is curved, as shown at 10, so that it will offer some resistance to the movement of the bar, and thus assist in holding the same against outward movement under the action of the curtain roller. The tension of the spring, however, is such that if any unusual strain is imposed upon the curtain the bar will force the spring back and ride over the oblique inner surface of the end of the finger and thus escape from the catch, thereby releasing the curtain.

The spring may be of different kinds and may be differently mounted, but as here shown, it comprises a leaf spring and is mounted on the rear side of the base plate, the latter being provided with an opening 11 through which the spring extends. In Fig. 2 of the drawings I have shown the base of the catch as curved to accommodate the same to a curved supporting surface. It is obvious, however, that this base may be of any suitable shape, and in Fig. 3 I have shown the same flat to enable it to be mounted against a flat surface.

The operation of the device will be readily understood from the foregoing description, and it will be apparent that I have provided a catch of very simple construction which can be applied at a low cost and which will coöperate with the handle, or other fastening bar, of the curtain to retain the curtain in its extended position against the action of the curtain roller, but which will yield to release the curtain when the strain upon the latter is such that the curtain is liable to injury.

While I have shown and described one embodiment of my invention, I wish it to be understood that I do not care to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

Having thus fully described my invention, what I claim is new and desire to protect by Letters Patent, is:

1. A catch for a vestibule curtain comprising a base plate, a finger secured to said base plate, extending lengthwise thereof and having at its free end a portion extending toward said base and spaced away therefrom, and a yieldable device extending into the space between said base and said finger and coöperating with said finger.

2. In a device of the character described, a base, a finger rigidly secured to and extending along said base, said finger having its free end turned inward but spaced away from said base to permit a fastening bar to pass between said base and the end of said finger, and a yieldable device carried by said base and extending toward said finger to hold said bar in engagement with the inturned portion of said finger.

3. The combination with a curtain and a handle secured thereto, of a catch to engage said handle and hold said curtain in its extended position, said catch comprising a base plate, a finger secured to said base plate, extending lengthwise thereof and having its free end turned inward toward said base plate, but spaced away therefrom to permit the passage of said handle, and a spring to engage said handle and hold the same against the inturned end of said finger.

4. In a device of the character described, a base plate having an opening therein, a finger secured to said base plate at one end of said opening and extending lengthwise of said plate, said finger having its free end turned inward but spaced away from said base to permit a fastening bar to pass between said base and the end of said finger, a spring mounted in the rear of said base plate, extending through said opening and arranged to engage said fastening bar to hold the same in engagement with the inturned portion of said finger.

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

JACOB D. HEATER.

Witnesses:
W. AMMONS, Jr.,
EDWARD D. REED.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."