No. 894,740. PATENTED JULY 28, 1908.

H. E. KEELER.

CURTAIN FIXTURE.

APPLICATION FILED FEB. 21, 1907.

Fig. 1,

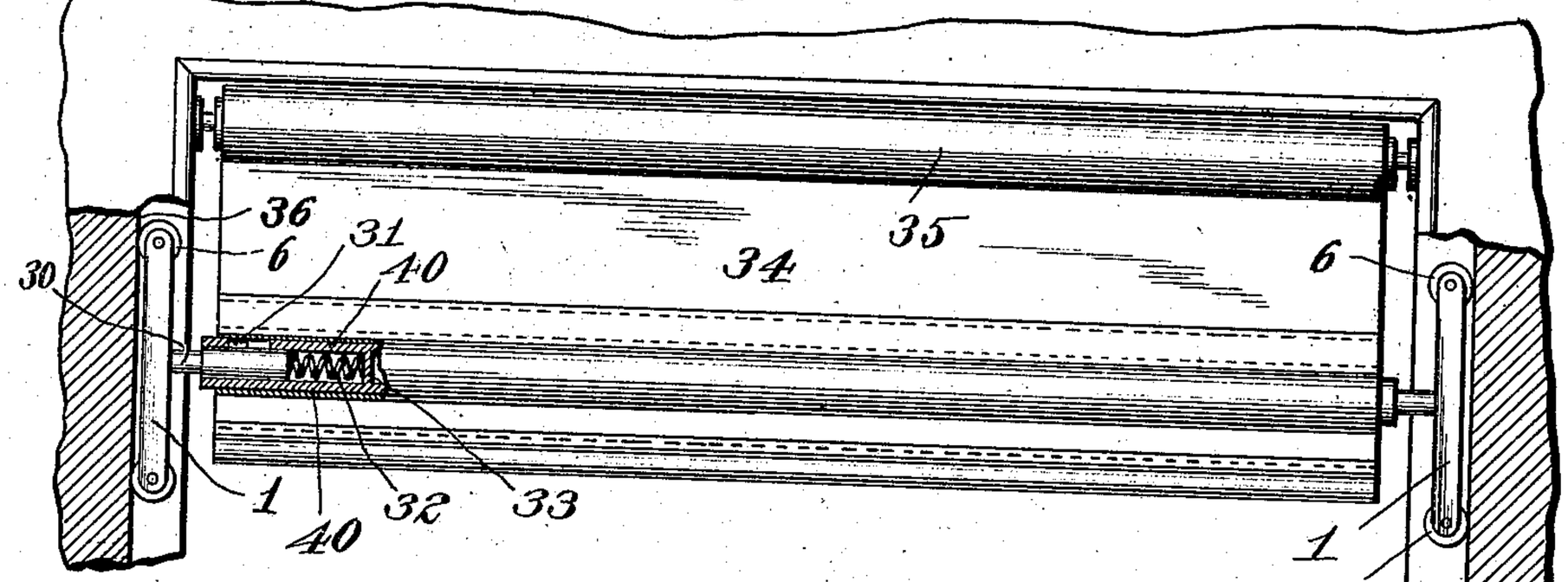


Fig. 2,

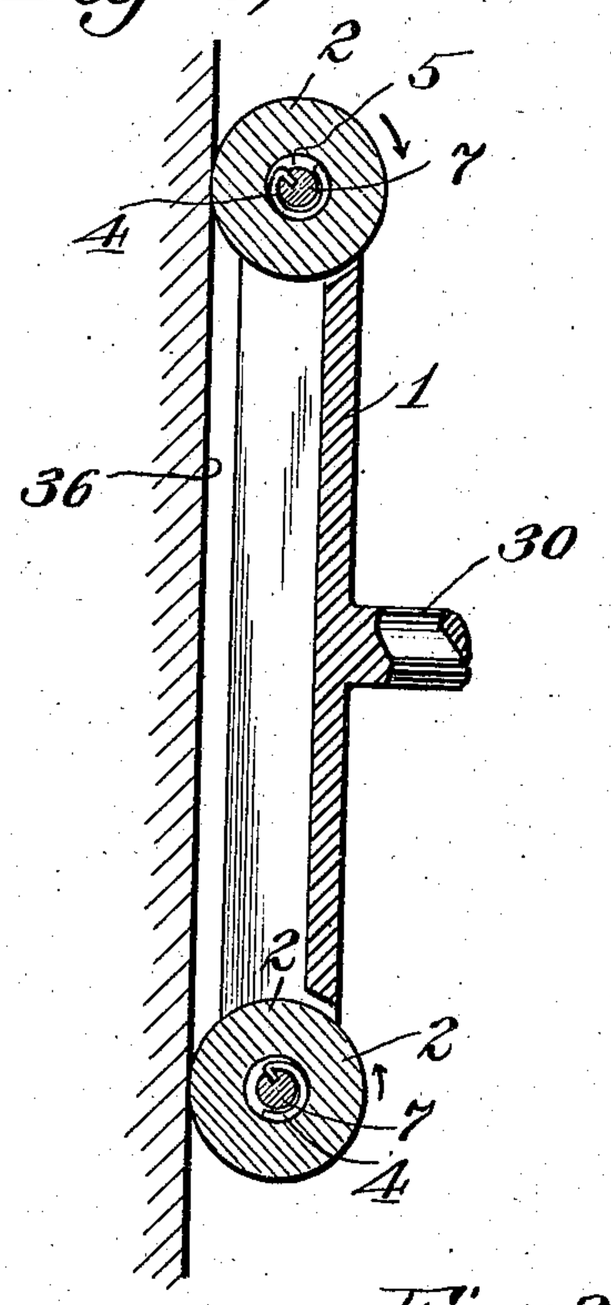


Fig. 4,

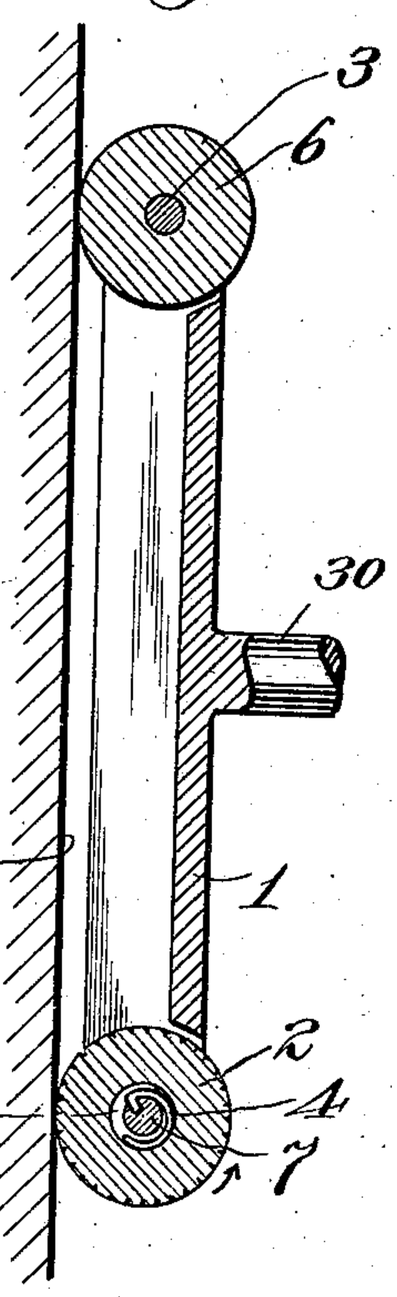
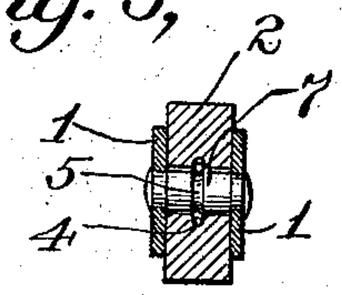


Fig. 3,



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CURTAIN-FIXTURE.

No. 894,740. Specification of Letters Patent. Patented July 28, 1908.

Original application filed December 5, 1903, Serial No. 183,862. Divided and this application filed February 21, 1907. Serial No. 358,634.

To all whom it may concern:

Be it known that I, HERBERT E. KEELER, a citizen of the United States, and now residing in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification, taken in connection with the accompanying drawings, forming part of this application, which is a divisional continuation of my United States Patent application No. 183,862, filed December 5, 1903.

This invention relates to curtain fixtures, such as are especially adapted for use in railway cars to allow the ready adjustment of the car curtains and to hold them securely in adjusted position.

In the accompanying drawings in which the same reference numeral refers to similar parts in the several figures, Figure 1 is an elevation partly in section showing an embodiment of this invention applied to a curtain. Fig. 2 is an enlarged detailed sectional view showing one form of shoe. Fig. 3 is a transverse section through the same. Fig. 4 is an enlarged sectional view showing another form of shoe.

In the embodiment of this invention shown in the drawings, the curtain 34 is indicated as being attached at its upper end to the constantly acting spring roller 35. Suitable guideways of any desired form are provided on either side of the curtain and these guideways may be of the grooved form indicated. The shoes 1 are carried by the curtain and coöperate with these guideways 36 and for this purpose the curtain stick or tube 40 may be secured near the bottom of the curtain in a suitable pocket or otherwise. The shoes are indicated as formed with suitable plungers 30 which fit within the ends of the curtain stick so as to be guided in their movement, and each plunger is preferably held in the aperture in the curtain stick by a suitable screw or pin 31 engaging the plunger and having its head operating in a suitable slot in the stick. Each shoe is preferably pressed into coöperation with the guideway by a suitable spring 32 which as indicated engages a stop 33 within the stock and operates against the end of the plunger.

The shoes are preferably provided with separated guiding members to frictionally engage the guideways, and these guiding members preferably comprise suitable rotating guiding members which may be in the form of cylindrical rolls whose peripheries or treads engage the guideway. In each shoe one or more of these rotating guiding members and its coöperating pin may be provided with a suitable clutching device tending to frictionally restrain the relative rotation of the guiding member. Any desired form of intermittently locking clutch may be employed for this purpose, the rotating member being preferably locked so that under the spring pressure used its rotation in one direction by engagement with the guideway is practically prevented, while it is allowed to rotate more freely in the other direction. If only one intermittently locking clutched roll is employed in each shoe this guiding member is preferably mounted below the other point of contact of the shoe with the guideway; and in this case the intermittently locking clutch between the roll and the pin is preferably arranged to lock this roll against rotation by contact with the guideway when the shoe moves upward but to allow the guiding member to rotate more freely when the shoe moves downward, so that the curtain may be readily lowered but is prevented from being raised by the spring roller. If another intermittently locking guiding member is employed in the shoe above the other member the intermittently acting clutch may be arranged to lock this second guiding member against rotation by the guideway when the shoe moves downward but to allow it to be rotated by the guideway upon the upward movement of the shoe.

The shoe may be provided with the roll 2 mounted upon the pin 7 below the center of the shoe. This pin is preferably rigidly secured in the shoe and may be riveted to the sides of the same, if desired, as indicated in Fig. 3. A suitable annular groove 5 is preferably formed in the pin and a similar coacting groove formed in the roll as indicated in Figs. 2 and 3 and the clutch spring 4 preferably having the curved contour indicated is secured at its inner end to the pin and lies when in operative position in the coacting grooves described. This clutching member

thus frictionally restrains the relative rotation of the pin and roll by having an end secured to one of these parts while the resilient member frictionally engages the other. The end of this light spring engages the roll as soon as the roll begins to rotate in the direction indicated by the arrow in Fig. 2 and may lock the roll against rotation in this direction. It is, of course, understood that these parts may be readily assembled by forcing the clutch spring into the recess 5 in the pin and thereupon inserting the pin and spring into the roll after which the pin can be readily secured to the shoe as indicated. The treads of the rotating guiding members used in this fixture may be formed of suitable material to properly coöperate with the guideways and should be formed of such material as to give the proper gripping action under the spring pressure used, and if desired, may be suitably roughened or corrugated for this purpose, as is indicated in connection with the roll 2 of Fig. 4.

If desired, a similar intermittently locking clutched roll 2 may be mounted at the upper end of the shoe 1 as is indicated in Fig. 2, the clutch spring 4 being preferably so mounted in the pin 7 as to engage the groove in the roll and lock this roll 2 against rotation in the direction indicated by the arrow; so that this upper clutched roll is locked against rotation by the guideway when the shoe is moved downward, but rotated under the influence of the guideway when the shoe moves upward. If preferred, however, a guiding member of any other desired form may be used in connection with an intermittently acting clutched rotating guiding member in the shoe and such guiding member may, if desired, be a rotating guiding member such as indicated in Fig. 4 in which the guide roll 6 may be mounted to rotate about the pin 3 in the shoe. The lower roll 2 is indicated as being constructed and mounted as has been described in connection with Fig. 2, the tread being indicated as roughened or corrugated which may be done in any case where necessary to give a greater holding action between the roll tread and the guideway. It is, of course, understood, however, that the coöperating guideing member may be non-rotary, if desired, and this may be accomplished in some cases by rigidly securing the guiding member 6 to the pin 3 by using a drive fit or by tightly riveting the parts together so as to prevent rotation.

It is, of course, understood that many changes may be made by those familiar with this art in the form, proportion and number of parts of this device. Furthermore, parts of the same may be employed without departing from the spirit of this invention or losing the advantages of the same. I do not therefore desire to be limited to the details of the disclosure which has been made in this case, but

What I claim as new and what I desire to secure by Letters Patent is set forth in the appended claims.

1. In curtain fixtures, a spring-actuated curtain, shoes carried by said curtain and pressed apart to coöperate with guideways, each of said shoes comprising a pin secured thereto, a rotating guiding member mounted on said pin, an intermittently acting resilient clutch between said rotating member and pin to lock said member against rotation by contact with said guideway when said shoe is moved upward and a guide roll mounted in said shoe above said rotating guiding member.

2. In curtain fixtures, a spring-actuated curtain, shoes carried by said curtain to be pressed into coöperation with guideways, pins in said shoes, rotating guiding members in said shoes mounted upon said pins to engage said guideways and intermittently acting resilient clutches between said members and pins to lock said members against rotation in one direction.

3. In curtain fixtures, a spring-actuated curtain, shoes carried by said curtain, pins in said shoes, a rotating guiding member mounted in each of said shoes upon one of said pins, and intermittently acting resilient clutching means between said members and said pins to restrain the rotation of said members in one direction.

4. In curtain fixtures, a curtain stick, shoes mounted on said stick, pins in said shoes, rotating guiding members mounted on said pins to form in connection therewith coöperating relatively rotating parts provided with coöperating annular grooves, and clutch springs located in said grooves and having ends secured to one of said coöperating parts to restrain the relative rotation thereof.

5. In curtain fixtures, a curtain stick, shoes mounted on said curtain stick, each shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient clutch member having an end secured to one of said parts to restrain the relative rotation thereof.

6. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts having an annular groove between them and a clutch spring located within said groove and having an end secured to one of said parts to frictionally restrain the relative rotation between them.

7. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient

clutching member located between said parts and secured to one of them to restrain the relative rotation between them.

8. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient restraining member secured to one of said parts to restrain the relative rotation between them.

9. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient restraining member located between and engaging said parts to restrain the relative rotation between them.

10. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient frictional restraining member coöperating with and engaging said parts to restrain the relative rotation between them.

11. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin to form in connection therewith relatively rotating parts and a resilient restraining member circularly arranged between said parts to frictionally restrain the relative rotation between them.

12. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin and a resilient restraining member having an end secured to said pin and extending circularly around the same to restrain the rotation of said guiding member with respect to said pin.

13. In curtain fixtures, a shoe comprising a pin, a rotating guiding member mounted on said pin, there being an annular groove between said pin and guiding member and a resilient substantially circular restraining member having an end secured to said pin and located within said groove to restrain the rotation of said guiding member with respect to said pin.

14. In a curtain fixture, the combination with a curtain stick and a shoe mounted on the end thereof, of a roller mounted in said shoe, and a spring frictional connection between said roller and its journal whereby the rotation of the roller is retarded.

15. In a curtain fixture, the combination with a curtain stick and a shoe mounted at one end thereof, of a roller carried by said shoe, a journal for the roller and a yieldable device on the journal for retarding the free rotation of said roller.

16. In a curtain fixture, the combination with a curtain stick and a shoe mounted at one end thereof, of a roller carried by said shoe, and a journal for the roller, and a frictional retarding device interposed between the journal and roller to retard the free rotation of said roller.

17. In a curtain fixture, the combination with a curtain stick, and a shoe mounted on the end thereof, of a journal carried by said shoe, a roller carried by the journal and a device located on the roller journal serving to retard the free rotation of the roller thereon.

18. In a curtain fixture, the combination with a curtain stick and a shoe mounted on the end thereof, of a roller carried by the shoe, a journal for the roller, and a device in the roller acting positively to exercise a frictional retarding action between the roller and journal.

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