

H. E. KEELER.
CURTAIN FIXTURE.
APPLICATION FILED AUG. 12, 1908.

925,344.

Patented June 15, 1909.

Fig. 1

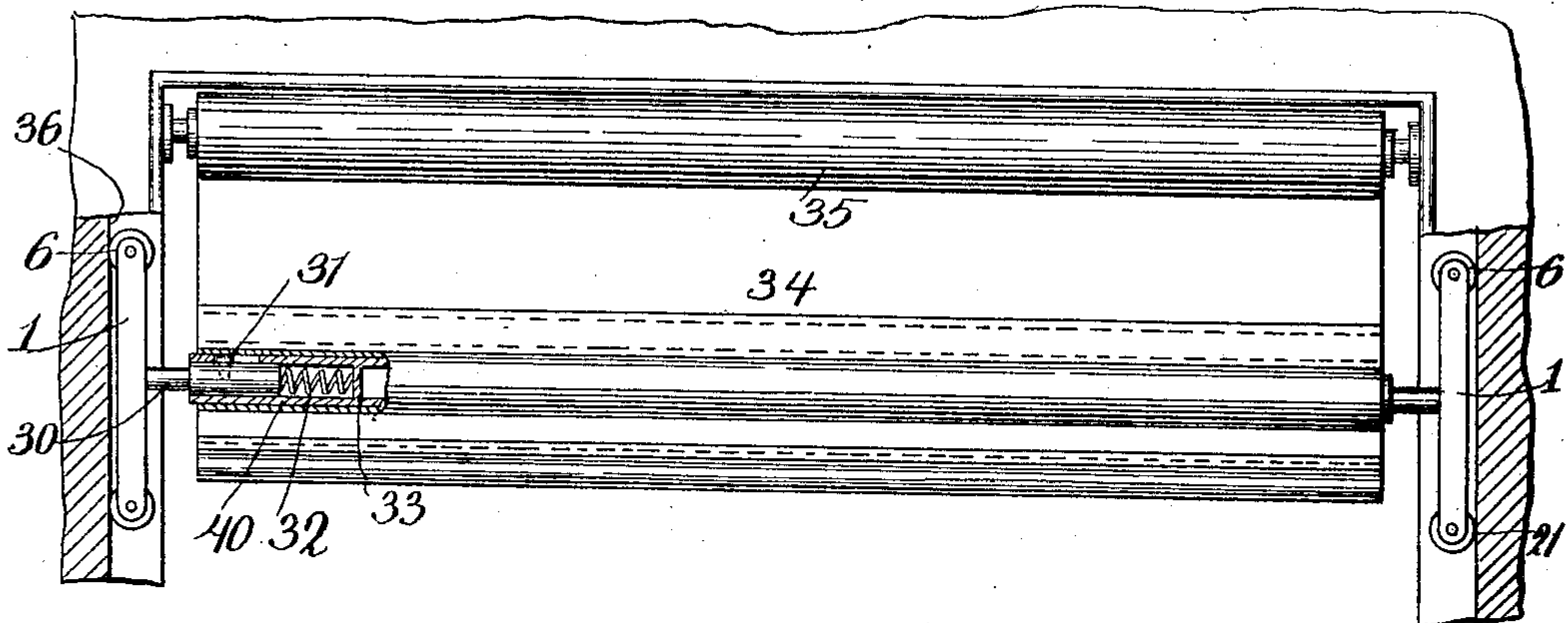


Fig. 2

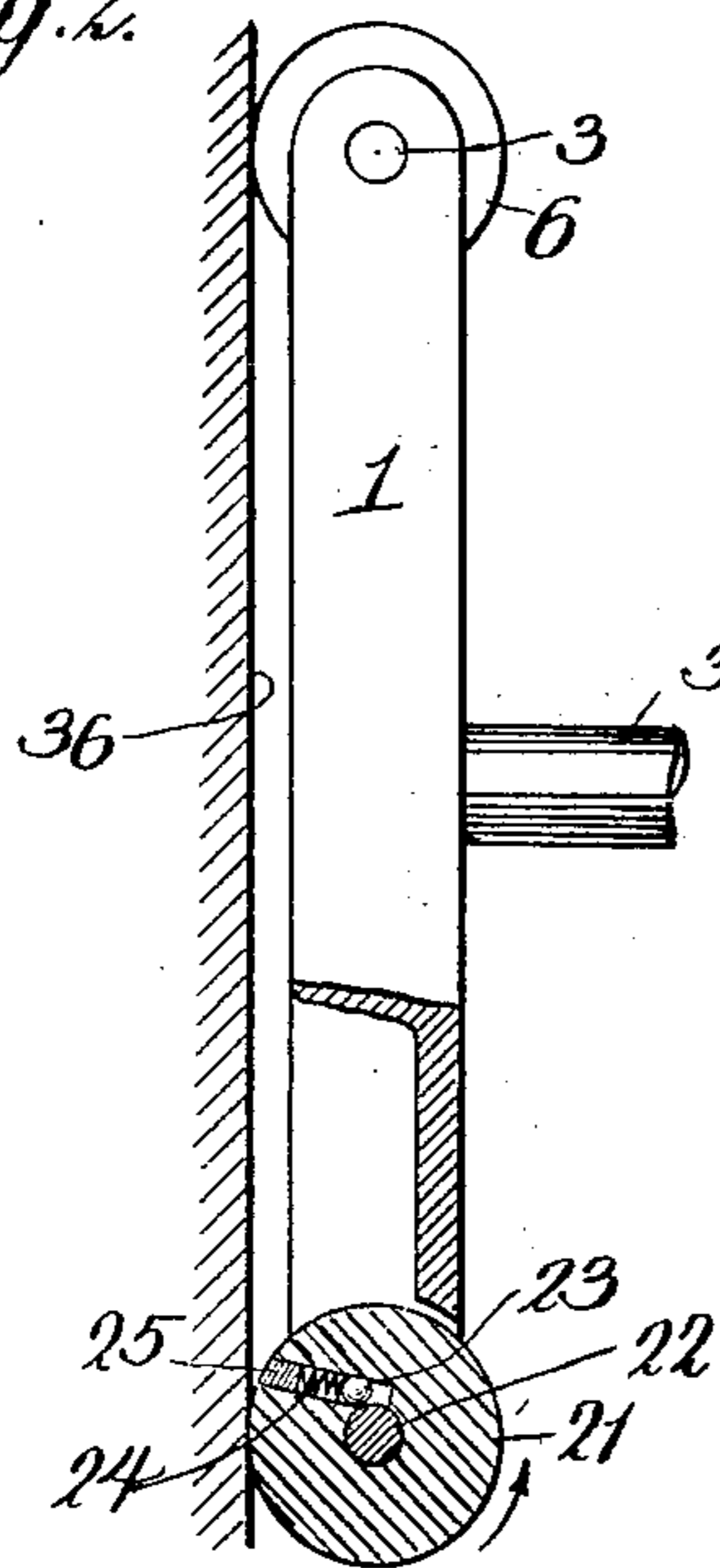
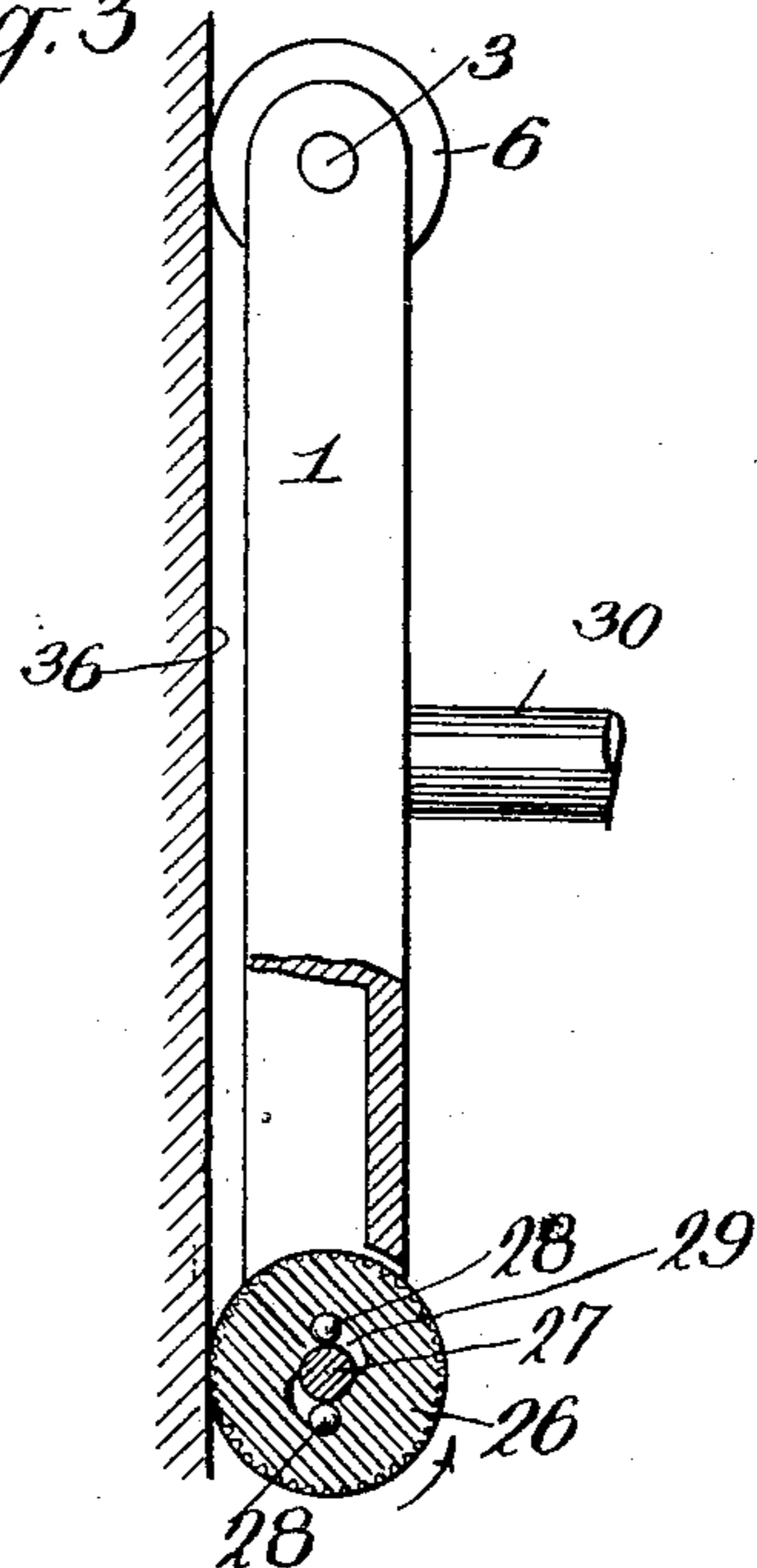


Fig. 3



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UNITED STATES PATENT OFFICE.

HERBERT E. KEELER, OF NEW YORK, N. Y., ASSIGNOR TO CURTAIN SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

CURTAIN-FIXTURE.

No. 925,344.

Specification of Letters Patent.

Patented June 15, 1909.

Original application filed December 5, 1903, Serial No. 183,862. Divided and this application filed August 12, 1908. Serial No. 448,252.

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 borough of Brooklyn, 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 drawing, 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 an enlarged sectional view showing another form of shoe.

In the illustrative 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 are carried by the curtain and cooperate 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 may as indicated be formed with suitable plungers 30 which fit within the ends of the curtain stick so as to be guided in their movements, 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 cooperation with the guideway by a suitable spring 32 which as indicated engages a stop 33 within the stick 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 guideways. In each shoe one or more of these rotating guiding members and a cooperating stationary part of the shoe such as the pin on which the guiding member is mounted may be provided with a suitable clutching device tending to restrain the relative rotation of the guiding member. Any desired form of intermittently locking rotary or rolling clutch device, of the ball or roll type for instance, 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 21 mounted upon the pin 22 below the center of the shoe as shown in Fig. 2, this pin being preferably rigidly secured to the sides of the shoe. The rotating or rolling clutch member restraining the rotation of the roll with respect to the shoe may of course cooperate with the roll and with any stationary part of the shoe such as the pin 22. The ball 23 may for instance be mounted in a suitable hole or aperture in the guide roll 21 and the outer end of this hole closed by a

plug 25 so as to hold a suitable light spring 24 in position to normally press the ball into engagement with the pin so that relative movement between these two parts is restrained when the rotating guiding member tends to move in the direction of the arrow, the angle of the hole being such as to give the proper restraining or locking action. The restraining member is thus concealed and protected by the inclosing guiding member in which it is mounted. If desired, a similar or any other form of intermittently acting clutched rotary guiding member may be mounted at the upper end of the shoe, although, if desired, a guiding member of any desired form may be used in connection with an intermittently acting clutched rotating guiding member in the shoe. The cooperating guiding member may if desired be a rotating guiding member such as indicated in Fig. 2 in which the guide roll 6 may be mounted to rotate about the pin 3 in the shoe. It is of course understood, however, that this cooperating guiding 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.

A number of rotary clutch members may be employed in connection with the rotating guiding member, if desired, and Fig. 3 indicates a number of apertures 29 formed in the rotating guiding member 26 in which suitable balls or rolls 28 may be mounted to cooperate with the stationary pin 27 upon which the guiding member 26 rotates. The apertures may be formed of varying depth as indicated so that the balls or rolls are wedged against the pin when the rotating guiding member tends to rotate in the direction indicated by the arrow and thus restrain or lock this guiding member against rotation when the shoe moves upward. The clutched guiding member may, however, be freely rotated in the other direction by engagement with the guideway, it being understood of course that the treads of the rotating guiding members used may be formed of suitable material to properly cooperate with the guideways and should be formed so as to give the proper gripping action under the spring pressure used and if desired their treads may be suitably roughened or corrugated for this purpose as indicated in Fig. 3. A cooperating guiding member 6 may be mounted in the upper end of the shoe by the pin or stud 3 as shown in Fig. 3 so as to be rotary or fixed in the shoe as desired under the spring pressure with which it is forced into engagement with the guideway 36.

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 to be pressed into cooperation with guideways, pins mounted in and forming relatively fixed parts of said shoes, rotating guiding members in said shoes mounted on said pins to engage said guideways and intermittently acting clutch balls mounted in and inclosed by said members to engage said pins and restrain the rotation of said members.

2. In curtain fixtures, a spring-actuated curtain, shoes carried by said curtain to be pressed into cooperation with guideways, rotating guiding members in said shoes to engage said guideways and clutch balls mounted in and inclosed by said members to cooperate with stationary portions of said shoes and restrain the rotation of said members.

3. In curtain fixtures, a curtain stick, shoes mounted on said stick, rotating guiding members in said shoes and intermittently acting rotary clutch devices mounted in and inclosed by said members and having relative rotation with respect to said members to cooperate with stationary portions of said shoes and restrain the rotation of said members.

4. In curtain fixtures, a curtain stick, shoes mounted on said curtain stick, rotating guiding members in said shoes and rotating clutch devices mounted in and inclosed by said members and having relative rotation with respect to said members to cooperate with said shoes and restrain the rotation of said members.

5. In curtain fixtures, a curtain stick, shoes mounted on said curtain stick, rotating guiding members in said shoes and inclosed rotating clutch devices having relative rotation with respect to said members and cooperating with said members and with stationary portions of said shoes to restrain the rotation of said members.

6. In curtain fixtures, a curtain stick, shoes mounted on said curtain stick, rotating guiding members mounted in said shoes and rotating clutch devices having relative rotation with respect to said members and cooperating with said members and shoes to prevent the free rotation of said members in one direction only.

7. In a curtain fixture, the combination of a stick, a shoe at the end of the stick, a roller

mounted in the shoe and rolling means within the shoe adapted to cooperate with the roller to prevent free rotation of said roller in one direction only.

5 8. In curtain fixtures, the combination of a stick, a shoe at the end of the stick, a rotating guiding member mounted in said shoe and rotating restraining means having relative rotation with respect to said member and cooperating with said member and shoe to prevent the free rotation of said member in one direction only.

15 9. In curtain fixtures, a curtain stick, a shoe mounted on said curtain stick, a rotating guiding member mounted in said shoe and rotary intermittently acting clutching means having relative rotation with respect to said member and cooperating with said shoe and said member to prevent the free rotation of said member in one direction only.

25 10. In curtain fixtures, a shoe comprising a rotating guiding member and rotating restraining means having relative rotation with respect to said member and cooperating with said shoe and said member to prevent the free rotation of said member in one direction only.

30 11. In curtain fixtures, a shoe comprising a guiding member and intermittently acting rotating clutching means having relative rotation with respect to said member cooperating with said shoe and said member to prevent the free rotation of said member in one direction.

35 12. In curtain fixtures, a shoe comprising a rotating guiding member and an intermittently acting rotary clutch device mounted in and inclosed by said member and having relative rotation with respect thereto to cooperate with a stationary part of said shoe and restrain the rotation of said member.

45 13. In curtain fixtures, a shoe comprising a rotating guiding member having an aperture and a spring-pressed rotating clutch device mounted in said aperture to have relative rotation with respect to said member and cooperating with a stationary portion of said shoe to restrain the rotation of said member.

50 14. In curtain fixtures, a shoe comprising a rotating guiding member and an intermittently acting clutch ball mounted in and inclosed by said member to cooperate with

a stationary portion of said shoe and restrain the rotation of said member in one direction. 55

15. In curtain fixtures, a shoe comprising a rotating guiding member and a spring-pressed clutch ball mounted in an aperture in said member to cooperate with a stationary portion of said shoe and adapted to prevent the free rotation of said member in one direction. 60

16. In curtain fixtures, a shoe comprising a pin, a rotating guiding member having an aperture and mounted on said pin and an intermittently acting rotating clutch device mounted in said aperture to have relative rotation with respect to said member and inclosed by said member and cooperating with said pin to restrain the rotation of said member. 70

17. In curtain fixtures, the combination of a stick, a shoe at the end of the stick, a rotating guiding member mounted in said shoe and a clutch ball cooperating with said member and shoe to prevent the free rotation of said member. 75

18. In curtain fixtures, a shoe comprising a rotating guiding member and spherical restraining means cooperating with said shoe and said member to prevent the free rotation of said member. 80

19. In curtain fixtures, a shoe comprising a rotating guiding member and a clutch ball mounted in and inclosed by said member to cooperate with a stationary portion of said shoe and restrain rotation of said member. 85

20. In a curtain fixture, the combination of a stick, a shoe at the end of the stick, a roller mounted in the shoe and rolling means within the shoe adapted and having relative rotation with respect to said roller to cooperate with said roller to prevent free rotation of said roller in one direction only. 95

21. In a curtain fixture, the combination of a stick, a head at the end of the stick, a wheel mounted in the head and rolling means within the head adapted to cooperate with the wheel to prevent free rotation of said wheel in one direction only. 100

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Witnesses:

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