

No. 833,838.

PATENTED OCT. 23, 1906.

H. E. KEELER.  
CURTAIN FIXTURE.  
APPLICATION FILED AUG. 21, 1905.

Fig. 1.

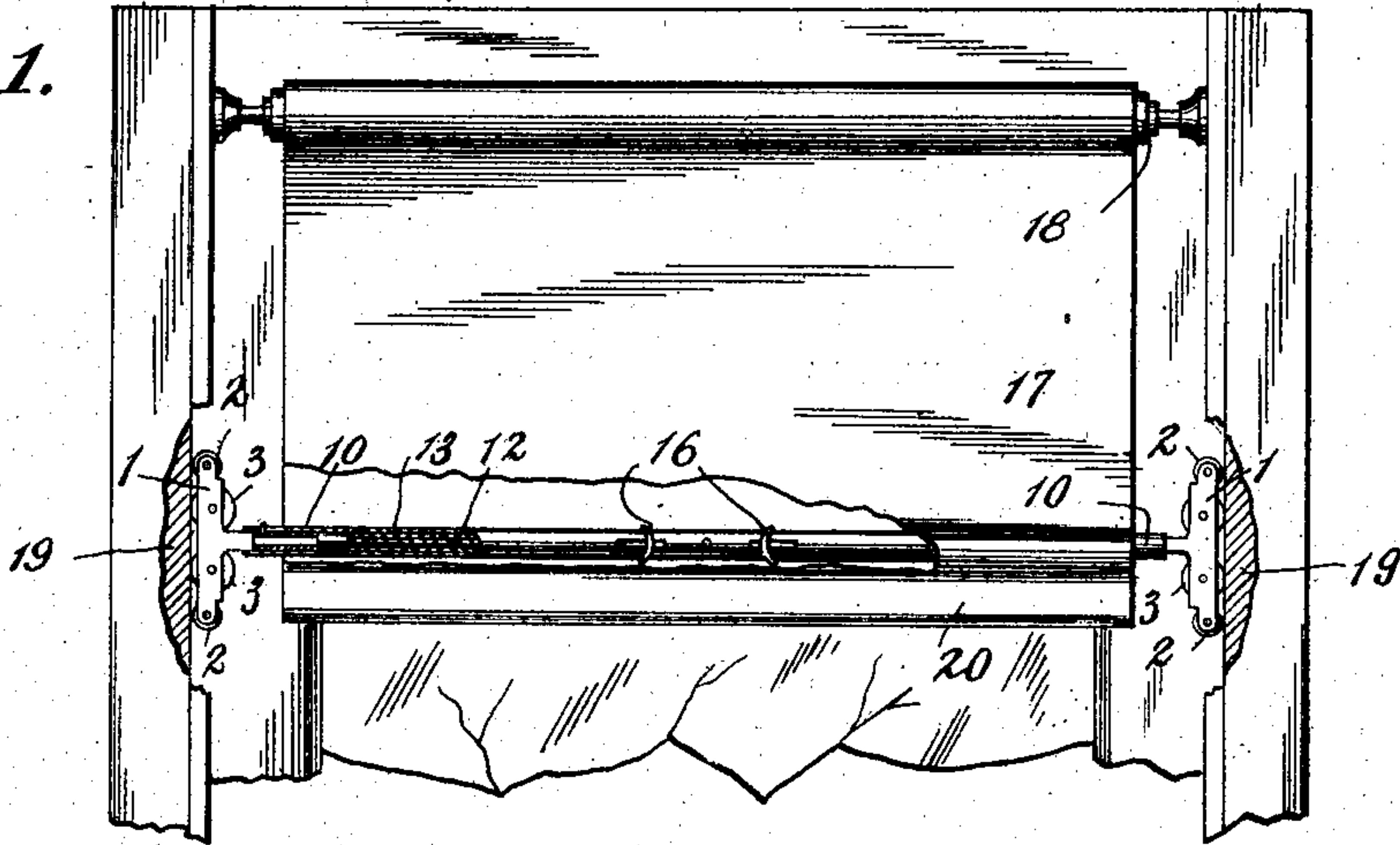


Fig. 2.

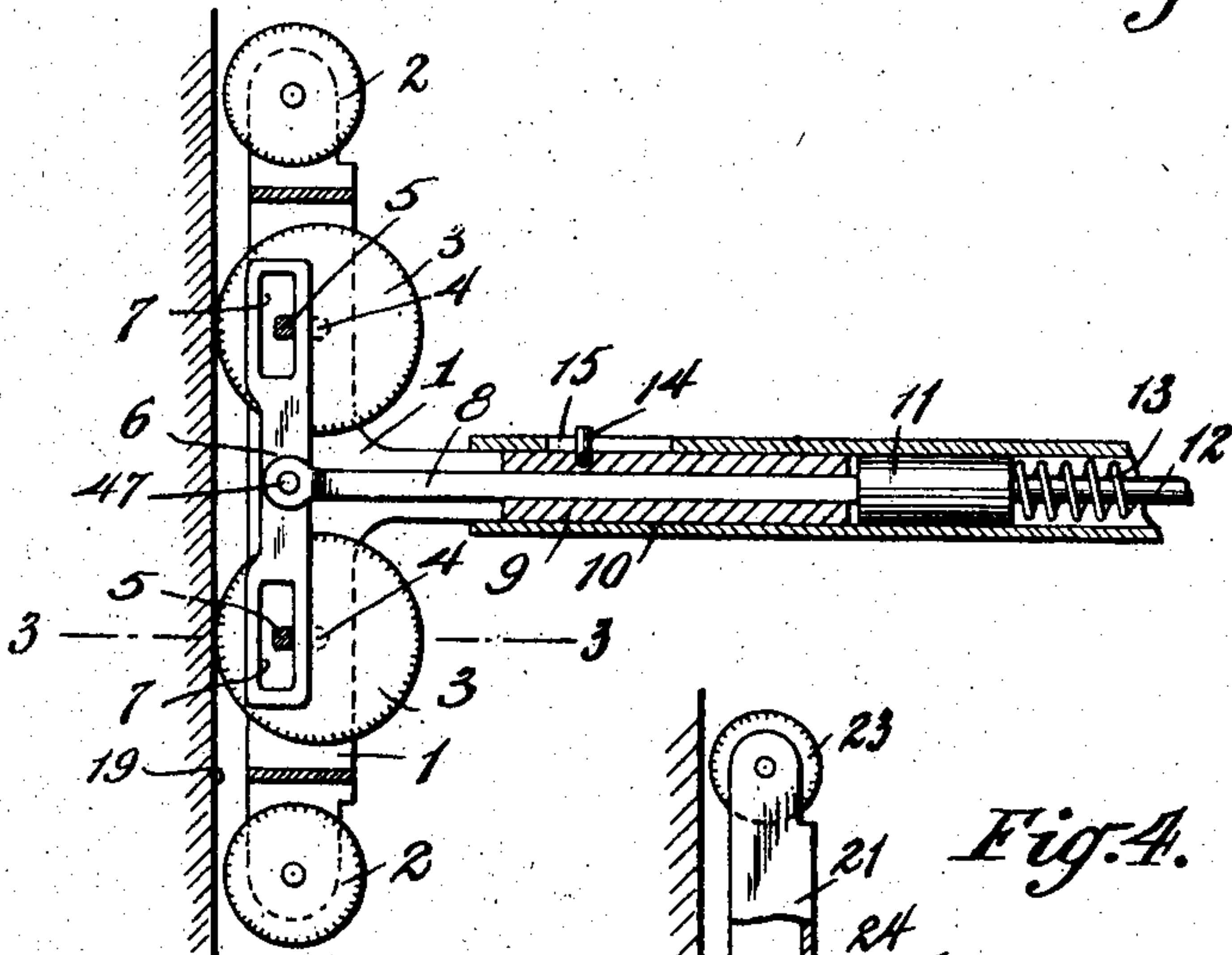


Fig. 3.

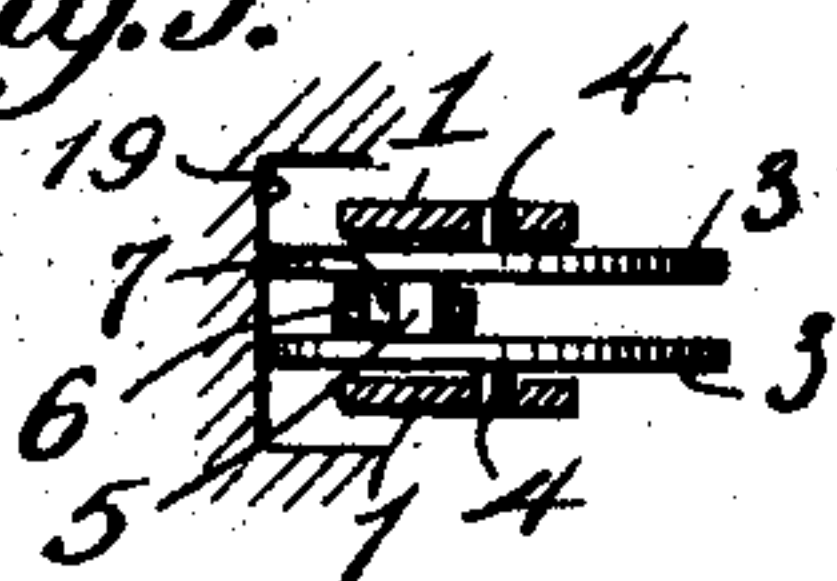


Fig. 5.

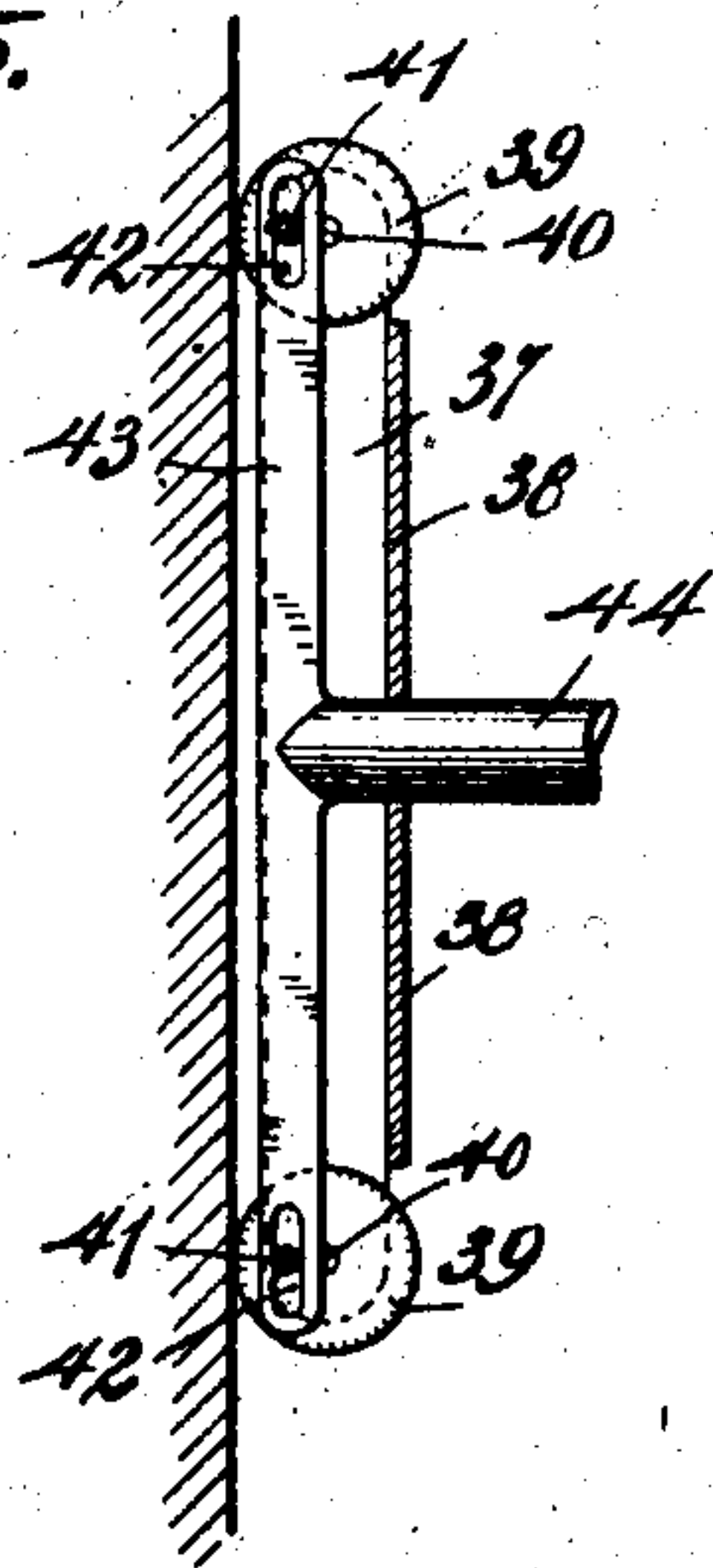
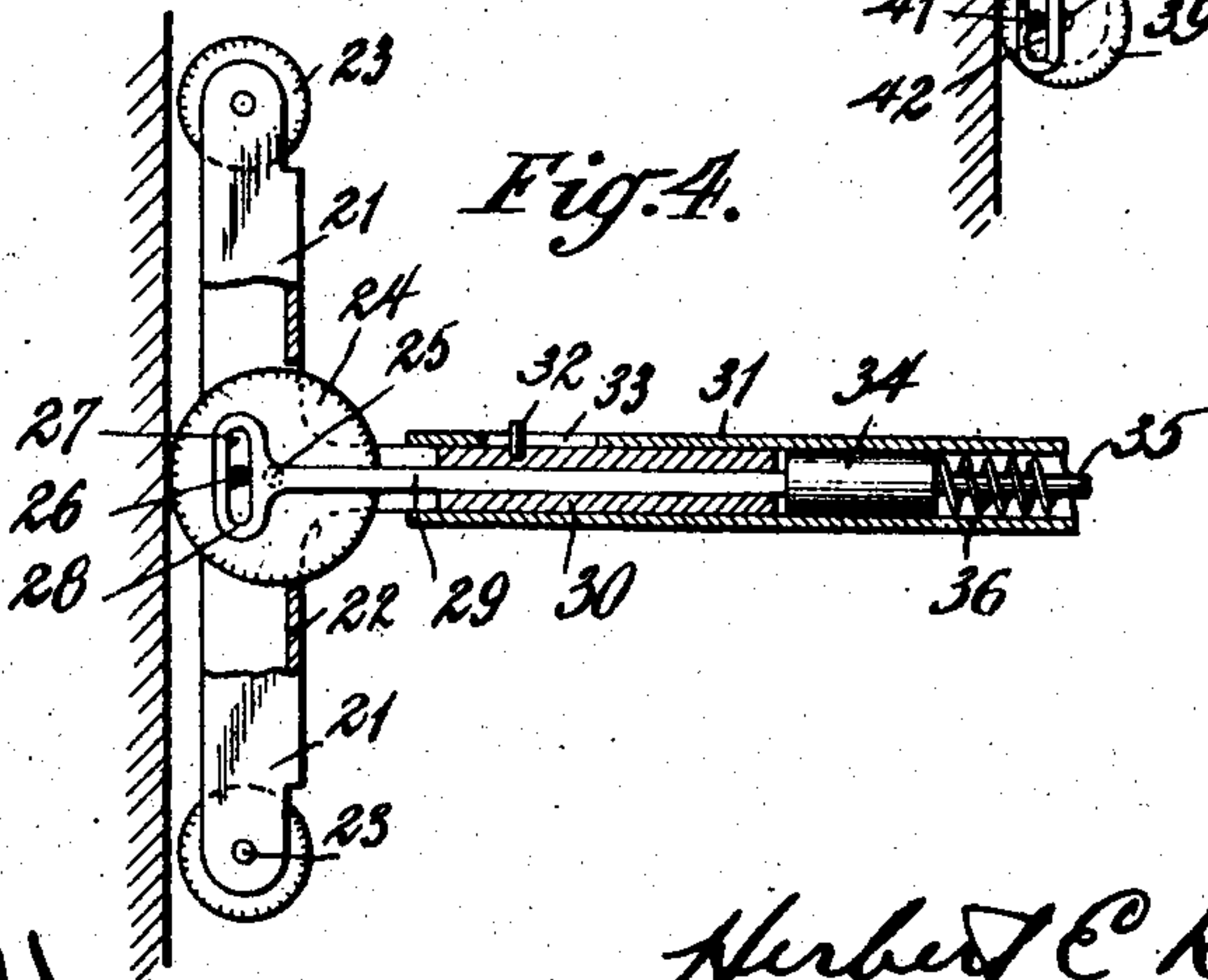


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## CURTAIN-FIXTURE.

No. 833,838.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed August 21, 1905. Serial No. 275,011.

*To all whom it may concern:*

Be it known that I, HERBERT E. KEELER, a citizen of the United States, and a resident of New York city, in the county 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, which form a part of the same.

This invention relates to curtain-fixtures, and relates especially to curtain-fixtures such as are employed in railway-cars and serve to securely hold a spring-actuated curtain in any desired position.

In the accompanying drawings, showing illustrative embodiments of this invention, Figure 1 is a front view, partly in section, showing one embodiment of this invention applied to a curtain. Fig. 2 is a detail sectional view, on a larger scale, showing the shoe. Fig. 3 is a transverse sectional view of the same on the line 3 3 of Fig. 2. Fig. 4 is an enlarged view of another form of shoe, and Fig. 5 is a similar view of still another form of shoe.

In the illustrative embodiment of this invention shown in the drawings the curtain 17 is preferably provided at its lower end with a suitable counterweight 20 and secured at its upper end to a constantly-acting spring-roller 18. The curtain-stick 10, which may be of tubular form, is indicated as secured in a suitable pocket at the lower end of the curtain in the usual way. This curtain-stick serves to secure the shoes to the curtain and to allow a relative reciprocation between them, so that they properly cooperate with the guideways 19 on either side of the curtain, which may be grooves of the usual form. The shoes may be retracted when desired by operating the pinch-handles 16, which are connected with the shoes by suitable rods 12, although these pinch-handles and rods may be omitted, if desired.

As indicated in Figs. 1, 2, and 3, each shoe 1 may be formed with a shoe-spindle 9, mounted within a suitable opening in the curtain-stick and guided therein by a pin 14 in the spindle, which cooperates with a slot 15 in the curtain-stick. In this shoe rotating guiding members may be mounted for engagement with the guideway, and these members may take the form of guide-rolls

3, with treads of gripping material—such, for instance, as corrugated metal, as indicated— 55  
mounted in the shoe by the concentrically-located pivots 4. Each guide-roll may be provided with a non-circular eccentrically-located retainer, and this retainer 5, as indicated in Figs. 2 and 3, may be polygonal and 60  
connect the two similar sections of the guide-roll. The degree of eccentricity of these retainers and their exact shape, including the number of sides, may be varied so as to secure with the spring-pressure employed 65  
the desired holding power of the fixture. A holding member in the form of the cross-head 6 is indicated as cooperating with these retainers, which fit loosely within the slots 7 in the cross-head. This cross-head is preferably rigidly secured to the stem 8 by the pin 47, which of course may form a rigid riveted connection, although it may be loosely secured upon the stem by the pivot or pin 47, for instance, and thereby connected with the 75  
plunger 11 within the curtain-stick. This plunger may be, as indicated, secured to the rod 12 of the corresponding pinch-handle, and this plunger is also engaged by the spring 13, which forces it outward. In this way a 80  
considerable pressure is always exerted between the holding member and the retainers, which forces the shoe outward and which also forces the guide-rolls outward into firm engagement with the guideway. When, 85  
however, the fixture is moved along the guideway, the guide-rolls are rotated by their frictional engagement with the guideway, and the engagement between the retainer and holding member is of such a yield- 90  
ing character as to readily allow the movement of the parts during the adjustment of the curtain-fixture, but yet to effectually retain the curtain in adjusted position. The holding power of this form of shoe is of 95  
course greatest when in the position indicated in Fig. 2, since under these conditions the holding member engages the retainer at a flat point thereof and at the lowest point.

The antifriction-rolls 2 may be pivotally 100  
mounted at the ends of the shoe and somewhat behind the plane of the operative treads of the guiding members, as indicated, so as to be slightly out of contact with the guideways when the fixture is in normal horizontal position, these antifriction-rolls being 105



adapted to engage the guideway on tilting the fixture to assist in restoring it to normal horizontal position.

If desired, only a single holding guiding member may be employed in each shoe, as is indicated in Fig. 4, where the guide-roll 24 is mounted to rotate about its concentrically-located pivot 25 in the shoe 21, this shoe being mounted upon the shoe-spindle 30, operating within the curtain-stick 31 and guided therein by the pin 32 and slot 33, as described. The antifriction-rolls 23 are also indicated as pivoted in either end of the shoe and normally out of contact with the guideway. The guide-roll 24, which of course has a tread of sufficiently gripping character to properly engage the guideway, is shown as formed with an eccentrically-located circular retainer 26, the degree of eccentricity being adjusted with relation to the spring-pressure, so as to give the proper holding power. This retainer is engaged by the folding member 28 in the form of a cross-head, the slot 27 being provided for inclosing and cooperating with the retainer 26. This cross-head is mounted on the stem 29. This plunger 34 may be connected, if desired, with the rod 35, and a suitable pinch-handle to retract the same and the plunger is also pressed outward by the spring 36 in the curtain-stick. If desired, the antifriction-rolls may be omitted from shoes of this character, and one form of construction of this kind is shown in Fig. 5, in which the shoe 38 carries rotating guiding members in the form of the circular guide-rolls 39, mounted to rotate about their concentric pivots 40. These rolls are provided with the eccentrically-located retainers 41, which are engaged by the holding member in the form of the cross-head 43, having slots 42 for the accommodation of these retainers. This cross-head is indicated as integral with the plunger 44, which passes loosely through the shoe 38 and is adapted to be mounted in the curtain-stick, as described, and connected with a pinch-handle, if desired.

Having described this invention in connection with several illustrative embodiments of the same, to the details of which I do not desire to be limited, 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 counterweighted spring-actuated curtain, guideways adjacent said curtain, a curtain-stick mounted in said curtain, shoes having spindles mounted in said curtain-stick to reciprocate with relation to each other, concentrically-pivoted guide-rolls in each of said shoes provided with non-circular eccentrically-located retainers, said guide-rolls having gripping-treads to engage said guideways, antifriction-rolls mounted in said shoes out of normal engagement with said guideways, a cross-head holding member provided with

slots to loosely engage said retainers, a spring-pressed stem loosely engaging said holding member and retracting means to withdraw said holding member.

2. In curtain-fixtures, a curtain, guideways adjacent said curtain, a curtain-stick in said curtain, shoes mounted in said curtain-stick to cooperate with said guideways, concentrically-pivoted guide-rolls in each of said shoes to engage said guideways, said guide-rolls being provided with eccentrically-located non-circular retainers, a spring-pressed holding member loosely engaging said retainers and retracting means to withdraw said holding members.

3. In curtain-fixtures, a spring-actuated curtain, guideways adjacent said curtain, shoes mounted to reciprocate in said curtain and cooperate with said guideways, rotating guiding members mounted in said shoes to engage said guideways, said guiding members being provided with eccentrically-located non-circular retainers, spring-pressed holding members loosely engaging said retainers to yieldingly hold said guiding members in position and means to retract said holding members.

4. In curtain-fixtures, a spring-actuated curtain, guideways adjacent said curtain, shoes mounted to reciprocate in said curtain and cooperate with said guideways, rotating guiding members mounted in said shoes to engage said guideways, said guiding members being provided with eccentrically-located retainers, spring-pressed holding members loosely engaging said retainers to yieldingly hold said guiding members in position and means to retract said holding members.

5. In curtain-fixtures, a shoe having a shoe-spindle adapted to cooperate with a guideway, a plurality of concentrically-pivoted guide-rolls in said shoe, each guide-roll being provided with an eccentrically-located non-circular retainer, a cross-head holding member loosely engaging said retainers, a stem connected with said cross-head and passing through said spindle to be forced outward under spring-pressure and antifriction-rolls mounted in said shoe on either side of said guide-rolls and behind the plane of their operating-treads.

6. In curtain-fixtures, a shoe having a shoe-spindle adapted to cooperate with a guideway, a plurality of concentrically-pivoted guide-rolls in said shoe, each guide-roll being provided with an eccentrically-located retainer, a cross-head holding member loosely engaging said retainers, a stem connected with said cross-head and passing through said spindle to be forced outward under spring-pressure.

7. In curtain-fixtures, a shoe having a shoe-spindle adapted to cooperate with a guideway, a plurality of concentrically-pivoted guide-rolls in said shoe, each guide-roll



being provided with an eccentrically-located non-circular retainer, a cross-head holding member loosely engaging said retainers and a stem connected with said cross-head and passing through said spindle to be forced outward under spring-pressure.

8. In curtain-fixtures, a shoe, rotating guiding members in said shoe, said guiding members being provided with eccentrically-located non-circular retainers and a spring-pressed cross-head holding member loosely engaging said retainers.

9. In curtain-fixtures, a shoe, rotating guiding members in said shoe, said guiding members being provided with eccentrically-located retainers and a spring-pressed cross-head holding member loosely engaging said retainers.

10. In curtain-fixtures, a curtain-stick, shoes mounted in said curtain-stick to reciprocate with relation to each other, rotating guiding members in said shoes provided with eccentrically-located non-circular retainers and spring-pressed holding members loosely engaging said retainers to force said shoes and guiding members outward.

11. In curtain-fixtures, a curtain-stick, shoes mounted in said curtain-stick to reciprocate with relation to each other, rotating guiding members in said shoes provided with eccentrically-located retainers and spring-pressed holding members loosely engaging said retainers to force said shoes and guiding members outward.

12. In curtain-fixtures, a curtain-stick, shoes mounted on said curtain-stick, concentrically-pivoted guide-rolls in said shoes said guide-rolls being provided with eccentrically-located retainers, spring-pressed holding members loosely engaging said retainers and forcing said guide-rolls and shoes outward,

and retracting means to withdraw said holding members.

13. In curtain-fixtures, a curtain-stick, shoes mounted on said curtain-stick, rotating guiding members in said shoes, said guiding members being provided with non-circular retainers, spring-pressed holding members loosely engaging said retainers and retracting means to withdraw said holding members.

14. In curtain-fixtures, a shoe having a shoe-spindle and adapted to cooperate with a guideway, said shoe comprising a concentrically-pivoted guide-roll to engage said guideway, said guide-roll being provided with an eccentrically-located retainer, a cross-head holding member loosely engaging said retainer and a stem connected with said cross-head to be forced outward under spring-pressure.

15. In curtain-fixtures, a shoe adapted to cooperate with a guideway and comprising a rotating guiding member provided with a non-circular retainer, a cross-head holding member loosely engaging said retainer and adapted to be forced outward under spring-pressure to force said guiding member and shoe into cooperation with said guideway.

16. In curtain-fixtures, a shoe comprising a rotating guiding member provided with an eccentrically-located retainer and a cross-head holding member loosely engaging said retainer.

17. In curtain-fixtures, a shoe comprising a rotating guiding member provided with a non-circular retainer and a cross-head holding member loosely engaging said retainer.

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