160. CLOSURES, PARTITIONS & PANE
FLEXIBLE & PORTABLE.

No. 873,863. PATENTED DEC. 17, 1907.

C. L. HOPKINS.

CURTAIN FIXTURE.

APPLICATION FILED AUG. 19, 1904.

Fig. 1.

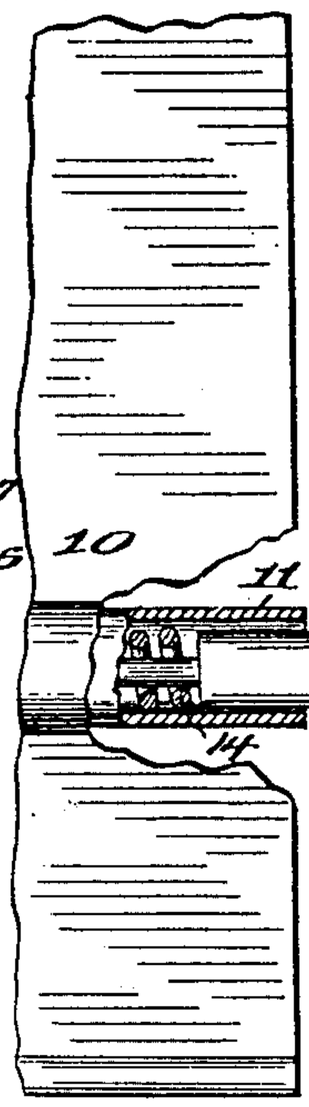


Fig. 2.

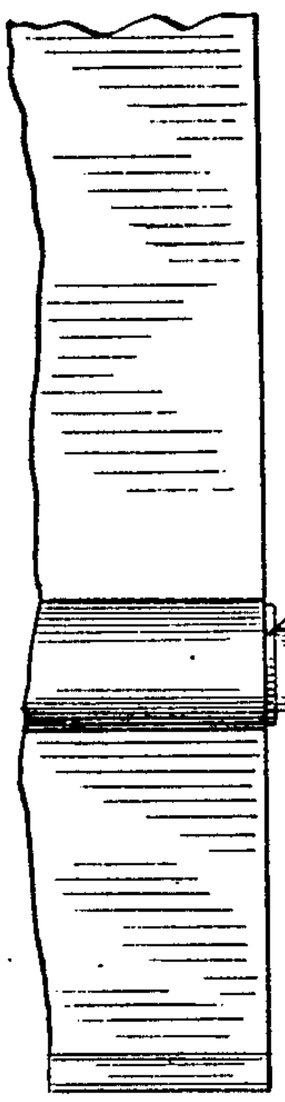


Fig. 6.

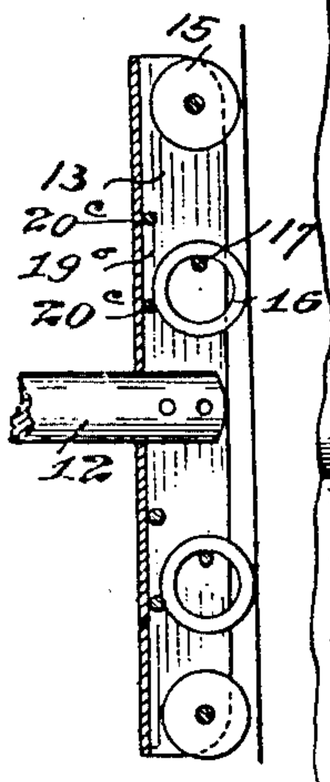


Fig. 3.

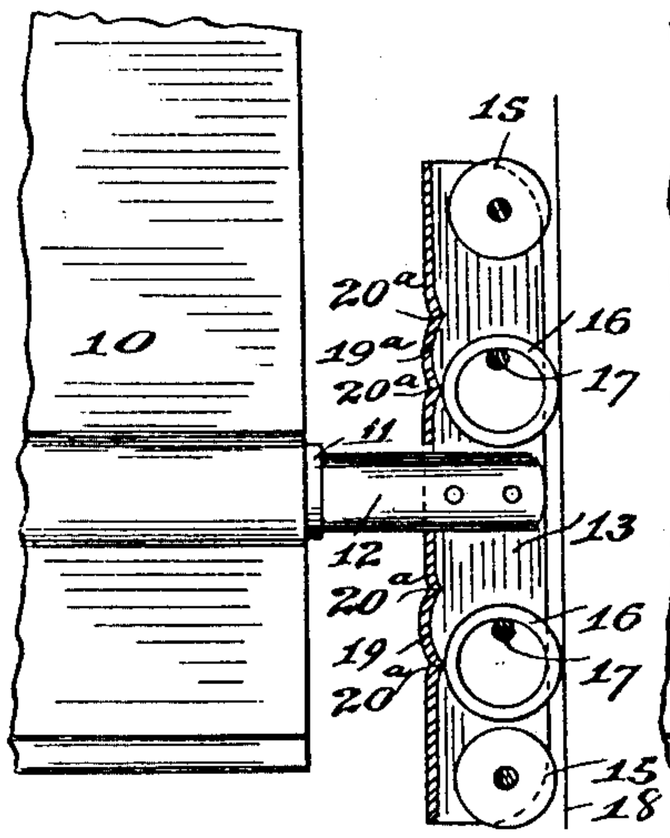


Fig. 4.

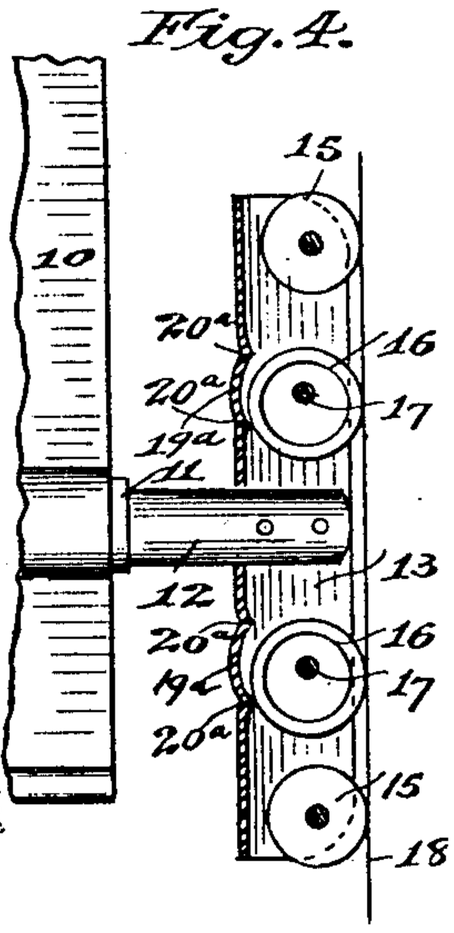
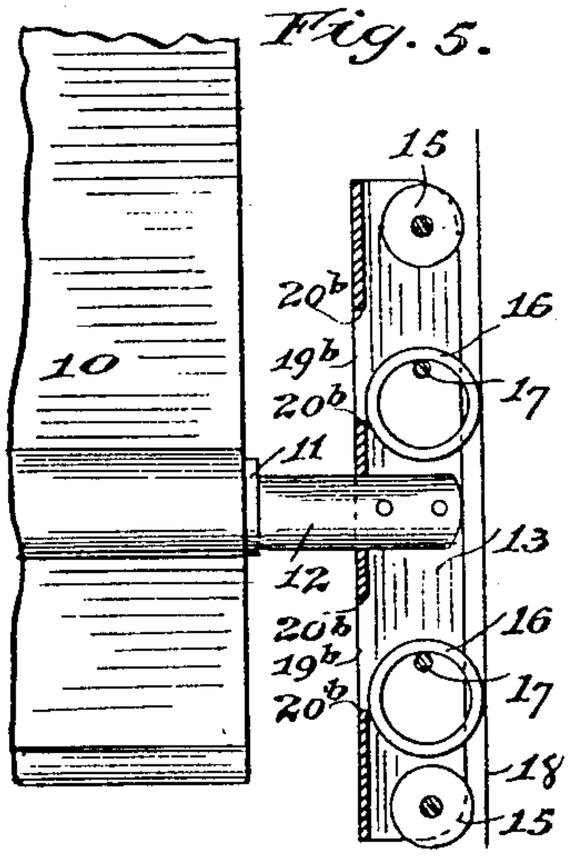


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CURTAIN-FIXTURE.

No. 873,863. Specification of Letters Patent. Patented Dec. 17, 1907.

Application filed August 19, 1904. Serial No. 221,414.

To all whom it may concern:

Be it known that I, CHARLES L. HOPKINS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

My invention relates to improvements in curtain fixtures of that general type wherein a spring-actuated curtain or shade is provided at its lower end with a curtain-stick carrying at its ends heads or shoes adapted to frictionally engage the window-casing to hold the curtain in adjusted position against the pull of its spring roller.

More particularly, this invention relates to a class of holding devices wherein the means for frictionally engaging the window-casing is effective to hold the curtain against upward movement, but is automatically released when the curtain is drawn downward, whereby the curtain and its holding mechanism may move downwardly without resistance and also without danger of the latter being out from the grooves in which it moves.

A further object of the present invention is the production of a holding device of the character above mentioned which is reversible; that is, the head may be applied either end up. To the accomplishment of this result my invention, broadly stated, consists in the combination with a spring-actuated head, of a holding member mounted in the head, said head being provided with a projection adapted to force the holding member into contact with the window-casing on the upward movement of the curtain, and a seat adjacent to the projection into which the holding member may recede to free the curtain upon the downward movement thereof. In its preferred form, the head is provided with duplicate projections on either side of the seat, whereby the head is adapted for use either end up.

In the drawings, Figure 1 is a view of a portion of a spring-actuated curtain and one end of its curtain-stick, carrying the head, the head being in vertical section and parts of the curtain and stick being broken away. In this figure the parts are represented as being in their normal relative positions, or in the positions they will assume when the curtain is stationary and subjected to the influence of the spring-actuated roller. In Fig. 2 is shown a corner of a curtain and one of the heads in vertical section, showing the relative positions of the parts when the influence of the spring-curtain roller is overcome and the curtain is being lowered or dropped. Fig. 3 is a view of a modification, the head being in vertical section, and showing the parts in their normal relative positions, while Fig. 4 shows the same modification with the parts in their relative positions when the curtain is being lowered. Fig. 5 shows another modification slightly different from the preferred form shown in Fig. 1, the parts being in their normal relative positions; and Fig. 6 shows still another modification.

In these drawings, 10 designates a corner of a curtain in and transversely of which is mounted the usual hollow curtain-stick 11, the latter carrying in each end the shank 12 of a hollow head 13 outwardly spring-pressed by the spring 14 within the stick 11. In each end of the head is rotatably mounted an anti-friction roller 15. A pair of rings 16 are loosely placed in the head 13 and prevented from becoming separated therefrom by the pins 17 passing one through each ring. These rings are adapted normally, or when the curtain is subjected to the upward pull of its spring roller, to be crowded or wedged between the back of the head and the opposing surface of the window-casing, represented conventionally by the line 18. The reason for this may be readily understood from a consideration of Figs. 1 and 2, in which is shown the preferred form of the invention. In this form of the device the head is formed with a recessed portion or seat 19 opposite each of the pins 17, into which the ring 16 may retreat under certain conditions. Normally, the relative positions of the parts will be as shown in Fig. 1. Suppose, now, the curtain be grasped by the hand of the operator at some point along the bottom of the curtain and given a downward pull. The ring 16 will roll upwardly relatively to the head and over the fulcrum point or surface formed by the corner or projection 20 of the recess 19 and the anti-friction rollers 15 will be brought into contact with the window-casing, as shown in Fig. 2, and the device will descend freely and without friction. If, now, the device be released from the hand of the operator, the rings will roll downwardly, relatively to the head, as far as permitted by the pins 17 and will be forced between the fulcrum points 20 and the window-casing 18,

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the head will be thrust inwardly against its spring 14, and the curtain will remain stationary with the parts in the relative positions shown in Fig. 1. It will be observed that the upper and lower halves of the head are alike, the head being, consequently, reversible.

Figs. 3 and 4 show a modification in which the head is formed with the projections 20^a and intermediate seat 19^a, the former forming fulcrum points over which the rings 16 turn and between which and the window-casing the rings are normally wedged to cause the latter, when in the lowest position which they are permitted by the pins 17 to assume, to act as a frictional holding means.

In the modification shown in Fig. 5 the head is cut away at the back as shown, leaving the points or corners 20^b at either end of a recess or opening 19^b over which fulcrum points or corners the rings rock or turn in a manner exactly similar to the action of the same parts in the preferred form of device shown in Figs. 1 and 2.

In the modification shown in Fig. 6, the fulcrum projections between which and the wall of the groove the ring is forced are shown as taking the form of pins 20^c passing transversely through the head adjacent to or in contact with the inner wall of the latter, and thereby forming between them a seat or recess 19^c into which the ring may recede to permit the free up and down movement of the head.

I have shown herein several mechanical embodiments of the principle of my invention, but I do not limit myself to any or all of these, as other forms of construction embodying the same combination of a movable holding member in association with a head having one or more projections and a seat coöperating with said movable member in the manner described would readily suggest themselves to the mechanic skilled in this art.

I claim:

1. A curtain fixture comprising a curtain stick, a spring actuated head carried thereby, and a holding member carried by said head, the said head being provided with a projection onto and from which the holding member rocks and thereby forces the latter into contact with the window casing on the upward movement of the curtain, and a seat adjacent to the projection into which the holding member will move and remain out of frictional contact with the window casing upon the downward movement of the curtain.

2. In a curtain fixture, the combination with a curtain-stick, of a head carried thereby, a holding member mounted in and carried by said head and having both rotary and bodily movement therein, a projection on said head onto and from which the holding member is adapted to rock to force the holding member into contact with the casing upon the upward movement of the curtain, and a seat adjacent to said projection which receives the holding member upon the downward movement of the curtain whereby the latter is released, substantially as described.

3. A curtain fixture comprising in combination a curtain-stick, a head at the end of the stick, a movable holding member mounted in said head, said head being provided with a seat or recess, and projections on opposite sides of the seat or recess onto and from which the holding member is adapted to rock whereby the holding member is forced into holding contact upon the upward movement of the curtain and released from holding contact upon the downward movement of the curtain, substantially as described.

4. In combination, a curtain-stick, a head at the end of the stick, a rotary and bodily movable holding member mounted in the head, a seat in and carried by the head into which the holding member may recede, and projections adjacent to the seat onto and from which the holding member rocks whereby to force the holding member into contact with the window-casing upon the upward movement of the head and out of holding contact therewith upon downward movement of the head, substantially as described.

5. A curtain fixture comprising a curtain-stick, a head at the end of the stick, a roller carried by the head and mounted for bodily and rotary movement in said head, a seat or recess in the head into which the roller may recede and be spaced from holding contact with the casing, and projections adjacent to the seat onto and from which the roller is adapted to rock to force the roller into contact with the casing upon the upward movement of the head, substantially as described.

6. A curtain fixture comprising a curtain stick, a head at the end of the stick, anti-friction rollers in the ends of the head, and holding members independently mounted in the head on opposite sides of the longitudinal axis of the stick, said head being provided with seats to receive the said holding members and with projections adjacent to the seats onto which and from which the holding members are adapted to rock to force the same into holding contact during the upward movement of the curtain.

7. A curtain fixture comprising in combination a curtain-stick, a head at the end of the stick, anti-friction rollers in the ends of the head, a holding member in the form of a ring mounted in the head between its ends, a retaining means on the head for said ring, the head being provided with a seat or recess into which the ring may recede and with projections adjacent to the seat onto and from which the holding ring is adapted to rock for

forcing the ring into contact with the casing upon the upward movement of the head, substantially as described.

8. The combination of a spring-actuated curtain, a stick carried thereby, heads at the ends of the stick, holding means consisting of rings carried by the head separated one from the other and means coöperating with the rings whereby the latter are adapted to hold the curtain against upward movements but permitting the curtain to have free downward movements, said holding means being operable in reversed positions of the head, substantially as described.

9. The combination of a spring-actuated curtain, a stick carried thereby, a head at the end of the stick, a plurality of holding means consisting of rings carried by the head held apart and means associated with the rings whereby the same are adapted to hold the curtain against upward movement but permitting the curtain to have free downward movement, the head being reversible and both of the holding means being effective with the head in either position, substantially as described.

10. A curtain fixture comprising a stick, a head carried thereby, a holding element loosely mounted in the head, and a projection on the head having the form of a point onto and from which latter the said element is adapted to rock.

11. A curtain fixture comprising a curtain stick, a spring actuated head carried thereby, a fixed fulcrum point in said head, and a seat adjacent said point in combination with a bodily movable friction member adapted to automatically contact with the fulcrum point and the window casing upon the upward movement of the curtain, and to move into said seat and remain out of contact with the casing during the downward movement of the curtain.

12. A curtain fixture comprising a head having a fulcrum point thereon and a recess or seat adjoining said point, and a bodily movable friction member mounted in the head and adapted to antomatically rock onto said point and frictionally engage the window casing upon the upward movement of the curtain, and to move from off said point and into said recess out of engagement with the casing upon the downward movement of the curtain.

13. A curtain fixture comprising a head having a fulcrum point thereon and a recess or seat adjoining said point, a supporting member in said head, a friction device mounted on said support and bodily movable relative thereto whereby the same will rock onto said point and frictionally engage the window casing upon the upward movement of the curtain and to move from off said point and into said recess out of engagement with the casing upon the downward movement of the curtain.

14. A curtain fixture comprising a head having a fulcrum point thereon, a supporting member on said head, and a friction device loosely mounted upon said support and bodily movable relative thereto whereby the same will automatically rock onto and from the fulcrum point.

15. A curtain fixture comprising a head having a fulcrum point thereon, a supporting member secured to said head, and a friction device mounted upon said support and bodily movable relative thereto whereby the same will automatically rock onto and from the fulcrum point.

16. A curtain fixture comprising a head having a fulcrum point thereon, a supporting rod secured to said head, and a ring friction device mounted on said rod and bodily movable relative thereto whereby the same will automatically rock onto and from the fulcrum point.

17. A curtain fixture comprising a head having a bodily movable rocking holding member mounted to rock around a fixed pin or axis, of contact points or projections at one side of the fixed axis, and upon which the holding member may contact.

18. A curtain fixture comprising a head, anti-friction devices on the head, a fulcrum point on the head and a movable friction member secured to the head and adapted to automatically rock onto and from said fulcrum point to engage and disengage the window casing and bring the friction member into and out of holding contact with said casing.

19. A curtain fixture comprising a head, anti-friction rollers adjacent the respective ends of the head, a fulcrum point on the head, and a bodily movable friction member secured to the head and adapted to automatically rock onto and from said fulcrum point to engage and disengage the window casing and bring the anti-friction rollers into and out of holding contact with said casing.

20. A curtain fixture comprising a head having a fulcrum point thereon, a supporting member in said head, and a friction device mounted upon said support and bodily movable relative thereto whereby a wedging action is exerted upon the device by said support and fulcrum point.

21. A curtain fixture comprising a head having fixed points of contact therein, and a rotary bodily movable friction device mounted in the head adapted to be pressed into engagement with both points of contact and be held against rotation by the combined action thereof.

22. A curtain fixture comprising a head having fixed points of contact therein ar-

ranged at different horizontal planes, and a rotary friction device mounted in the head and bodily movable transversely relative thereto and adapted to be brought into contact with both points upon the upward pull of the curtain to create a wedging action upon said friction device and prevent movement of said device beyond a fixed point.

23. A curtain fixture having a holding member of circular form, a support upon which said member is bodily movable, a contact point, the said member being adapted to have peripheral contact at one point with the window casing and at another point with the contact point, and an intermediate contact with its support, whereby the same is wedged from movement.

24. A curtain fixture comprising a head having a contact point thereon, a support in said head, and a friction device mounted upon said support and bodily movable relative thereto whereby the same will have peripheral contact at one point with the window casing, at another point with said contact, and an intermediate contact with said support.

25. The combination of a spring actuated curtain, a stick carried thereby, a head at the end of the stick, a plurality of holding means consisting of rings carried by the head held apart, and means associated with the rings whereby they are adapted to hold the curtain against upward movement but permitting the curtain to have free downward movement.

26. A curtain fixture comprising a curtain stick, a spring actuated head carried thereby, and a plurality of separated holding members secured to the head, said head being provided with projections onto and from which the holding members rock, forcing the holding members into contact with the window casing on the upward movement of the curtain, and permitting the same to automatically recede from holding contact with the casing upon downward movement of the curtain.

27. A curtain fixture comprising a curtain stick, a spring actuated head carried thereby, a holding member secured to the head and having both rotary and bodily movement therein, and a projection on said head onto and from which the holding member is adapted to rock, to alternately hold and release the curtain.

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