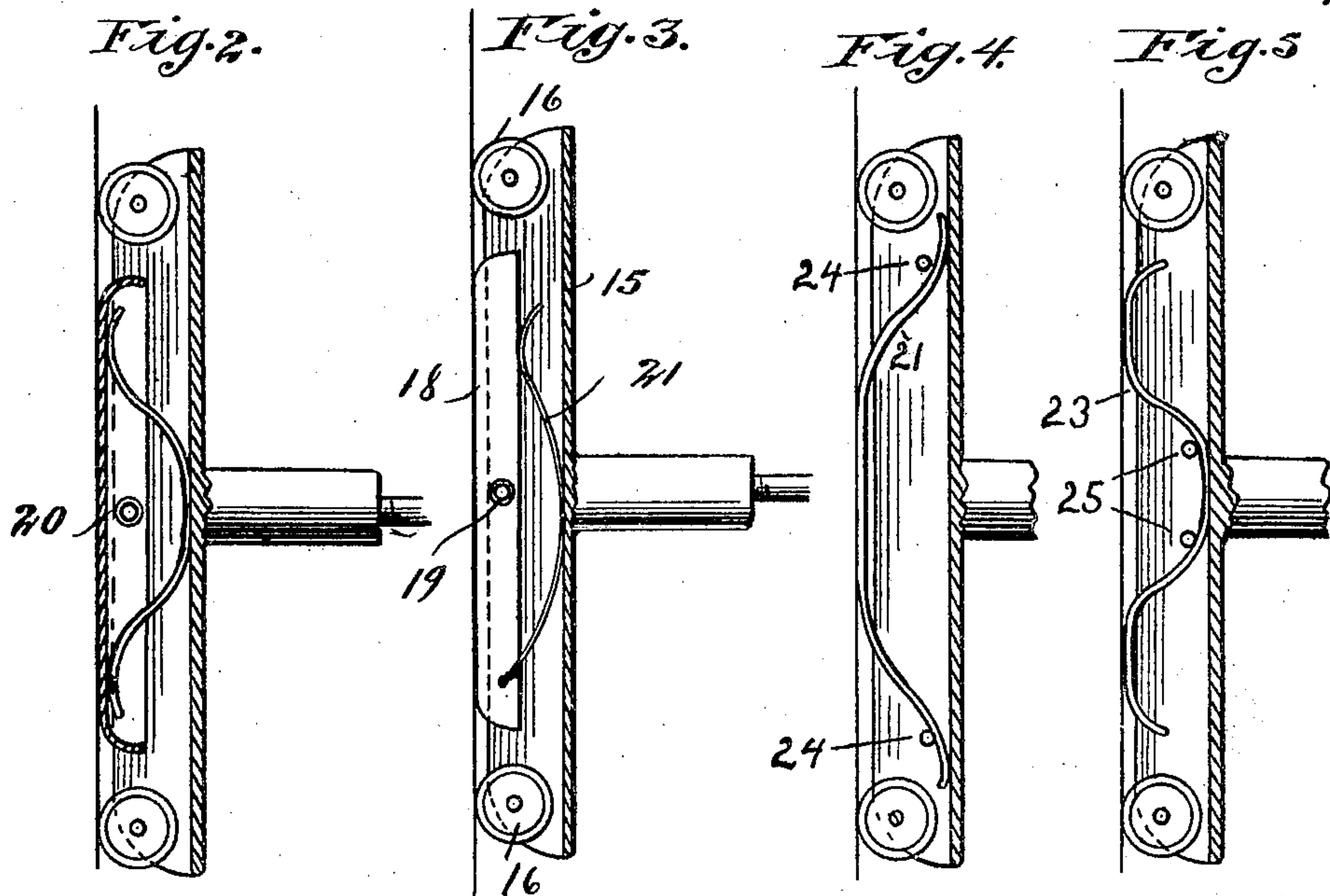
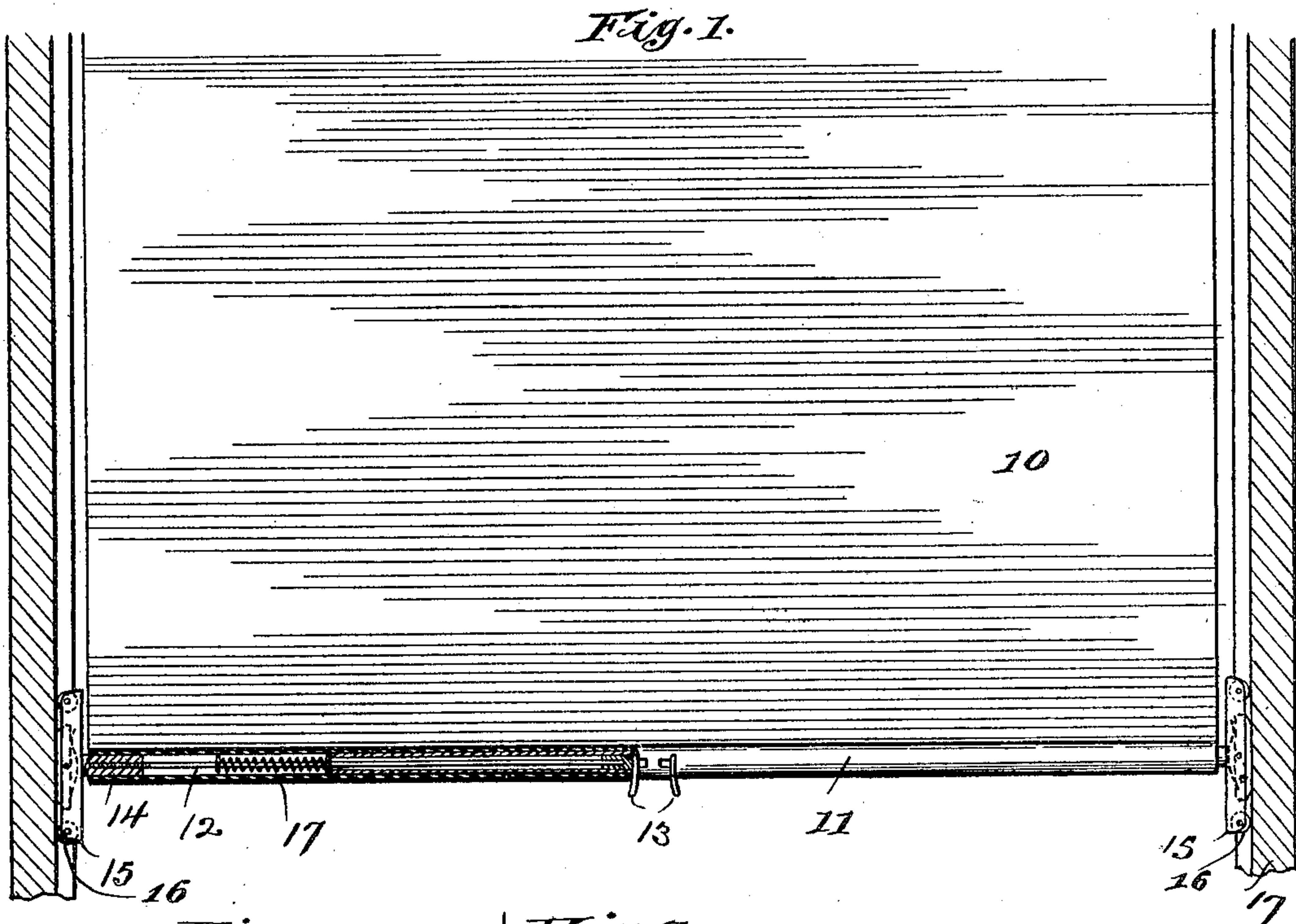


No. 804,308.

PATENTED NOV. 14, 1905.

G. H. FORSYTH.
CURTAIN FIXTURE.
APPLICATION FILED JULY 13, 1901.



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UNITED STATES PATENT OFFICE.

GEORGE H. FORSYTH, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CURTAIN SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

CURTAIN-FIXTURE.

No. 804,308.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed July 13, 1901. Serial No. 68,214.

To all whom it may concern:

Be it known that I, GEORGE H. FORSYTH, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

My invention relates to that class of fixtures which employ in combination both friction and antifriction devices. In one type of these devices having such combination the friction and antifriction means are so arranged in relation to each other and to the curtain device that the antifriction devices, usually rollers, serve as guides to the curtain in its travel up and down the window-frame and the friction devices are always in contact. In another class of these devices the antifriction means are normally inactive or inoperative until the lower edge of the curtain is placed in an abnormal position, in attaining which position the antifriction devices are brought into contact and the friction devices are wholly or partially withdrawn from contact.

My invention is intended to embody the valuable features of both of these types of fixtures; and it consists in the novel devices and combinations of devices and relative arrangement of parts, as hereinafter described, but more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation, partly in section, showing my invention as applied to a window-frame; and Figs. 2 to 5, inclusive, show various modifications in the construction.

In the drawings let 10 represent the curtain, which, it is understood, will be mounted upon a spring-actuated shade-roller, (not shown,) 11 the hollow shade-stick, and 12 spring-actuated rods mounted therein and provided with pendants 13. The outer ends of the rods are threaded into shanks 14 of the elongated hollow heads 15, which carry at their extremities antifriction-rollers 16. The springs 17 are arranged to thrust the rods 12, and consequently the heads 15, outwardly and to maintain the antifriction-rollers 16 in contact with the bottoms of the grooves in the window-frame. So far the construction is well known. Associated with these heads are friction devices, various forms and arrangements of which may be employed. In the preferred form I make use of friction-shoes 18, which may be hollowed on their inner sides and are

preferably connected to the heads by means of the pins 19, passing through enlarged apertures 20. A suitable spring 21, preferably a bow-spring, is arranged to bear upon the bottom of the hollow head 15 and upon the back of the shoe, the ends of the spring being arranged within the cavity of the shoe, as shown in Fig. 2, so as to prevent the spring from working out. Instead of this particular construction the bow-spring may be secured at one end to the shoe and have its other end bearing thereon, so as to permit the straightening of the spring under pressure, as shown in Fig. 3. It is also within the scope of my invention to omit the shoes or to further modify the form thereof. Thus, as shown in Figs. 4 and 5, the block is omitted and the bow-spring is made to bear directly upon the frame, thus constituting in itself the yielding friction device. In said Fig. 4 the bow-spring 21 has a flat crown or outer portion and the ends of the spring are curved inward or backward and project under small cross-pins 24 in the head. In Fig. 5 the position of the spring 23 is the reverse of that shown in Fig. 4. The arms of spring 23 are slightly flattened, as shown, while the central or crown part is placed near the inner part of the head and there secured by pins 25.

Describing first the operation of the device wherein the friction-shoe is employed, the parts are so adjusted that the faces of the rollers and the shoe are normally in line and make contact with the bottom of the groove. The curtain may be moved up and down either by taking hold of its lower edge directly or by operating the pendants 13, thus retracting the friction-shoes, whereupon the rollers become guides, assisting to direct the curtain smoothly up or down. In this movement, however, the shoes may maintain a slight contact with the window-frame, but not sufficient to prevent the adjustment of the curtain, and as soon as the curtain is released the rollers are again pressed into contact by the springs 17, and the shoes are also forced into contact by the bow-spring, serving to hold the curtain in the adjusted position. The continued or persistent bearing of the friction-shoes, due to the independent pressure of the bow-spring, tends to prevent the canting of the shade-stick or the moving thereof into an abnormal position, and the shoe is not withdrawn from contact until the

pin 19 engages the forward wall of the enlarged aperture 20 in such shoe. Thus the pin and the enlarged aperture constitute a connection which enables the governing-spring 21 to exert its full force until the movement tending to separation has proceeded to such an extent as to cause the shoe to move with the head. When this point is reached, the power of the spring mounted in the curtain-stick, as well as the power of the spring acting upon the shoe, tend to resist the further canting of the fixture, and when the curtain is released the spring-pressure tends to restore the parts to their normal operative position.

Although the same form of connection is not employed in the construction shown in Figs. 4 and 5, yet to a certain extent the bow-spring itself tends to maintain friction after the head is tilted to an abnormal position or withdrawn by means of the pendants. In other words, the spring tends to maintain frictional contact with the frame until the spring is no longer under tension.

I claim—

1. In a curtain-fixture the combination with a window-frame, a spring-actuated shade and a shade-stick, of heads carried by the stick, springs tending to force said heads outwardly, rollers carried by said heads and friction-shoes elastically connected with said heads independent of said stick, said rollers and said shoes being arranged to contact with the window-frame.

2. In a curtain-fixture the combination with heads, outwardly - thrusting springs acting upon said heads, rollers carried by said heads, friction-shoes elastically connected with said heads, and transversely-extending means on the head for retaining the shoes therein, said rollers and said shoes being arranged to make contact with the window-frame.

3. In a curtain-fixture the combination with a curtain-stick, sliding rods and outwardly-forcing springs for said rods mounted therein, heads carried by the rods, antifriction-rollers carried by said heads, friction-shoes carried by said heads, springs interposed between the shoes and the heads, means for retracting the heads, and means for connecting

the shoes with the heads, substantially as described.

4. In a curtain-fixture the combination with an elongated head to be carried by a curtain and having antifriction-surfaces at its ends, of an elongated pivoted shoe in the head and a yielding means interposed between the shoe and the head engaging the shoe on opposite sides of its pivot.

5. In a curtain-fixture the combination with an elongated head to be carried by the curtain, of antifriction-rolls at the ends of the head, a pivoted shoe in the head and a bow-spring interposed between the head and shoe engaging the shoe on opposite sides of its pivot.

6. In a curtain-holding device, the combination with a shade-stick, of a guide yieldably connected therewith, a friction holding device in said guide yieldingly held independent of the stick, and transversely-extending means on said head for mounting said friction holding device so that the same may have an independent yielding body movement toward and from the edge of the guide.

7. In a holding device for spring-actuated shades, the combination with a shade, of a stick carried thereby, a yieldable guide carried by the stick, and a friction holding device secured to the guide comprising a part having body movement toward and from the outer edge of the guide and spring parts extending inward from the friction part toward the rear portion of the guide whereby the frictional holding part is normally projected outward.

8. In a curtain-holding device, the combination with a shade-stick, of heads carried thereby, springs for normally thrusting said heads outwardly, curved bearings at the ends of the heads adapted to contact with the window-frame, and a yielding friction member mounted in the head between said end bearings, and transversely-extending means connecting the friction member to the head and permitting the same to have yielding movement toward and from the outer edge of the head.

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