D. WHINERY.

SHADE FIXTURE.

APPLICATION FILED JULY 16, 1906.

898,947. Patented Sept. 15, 1908.

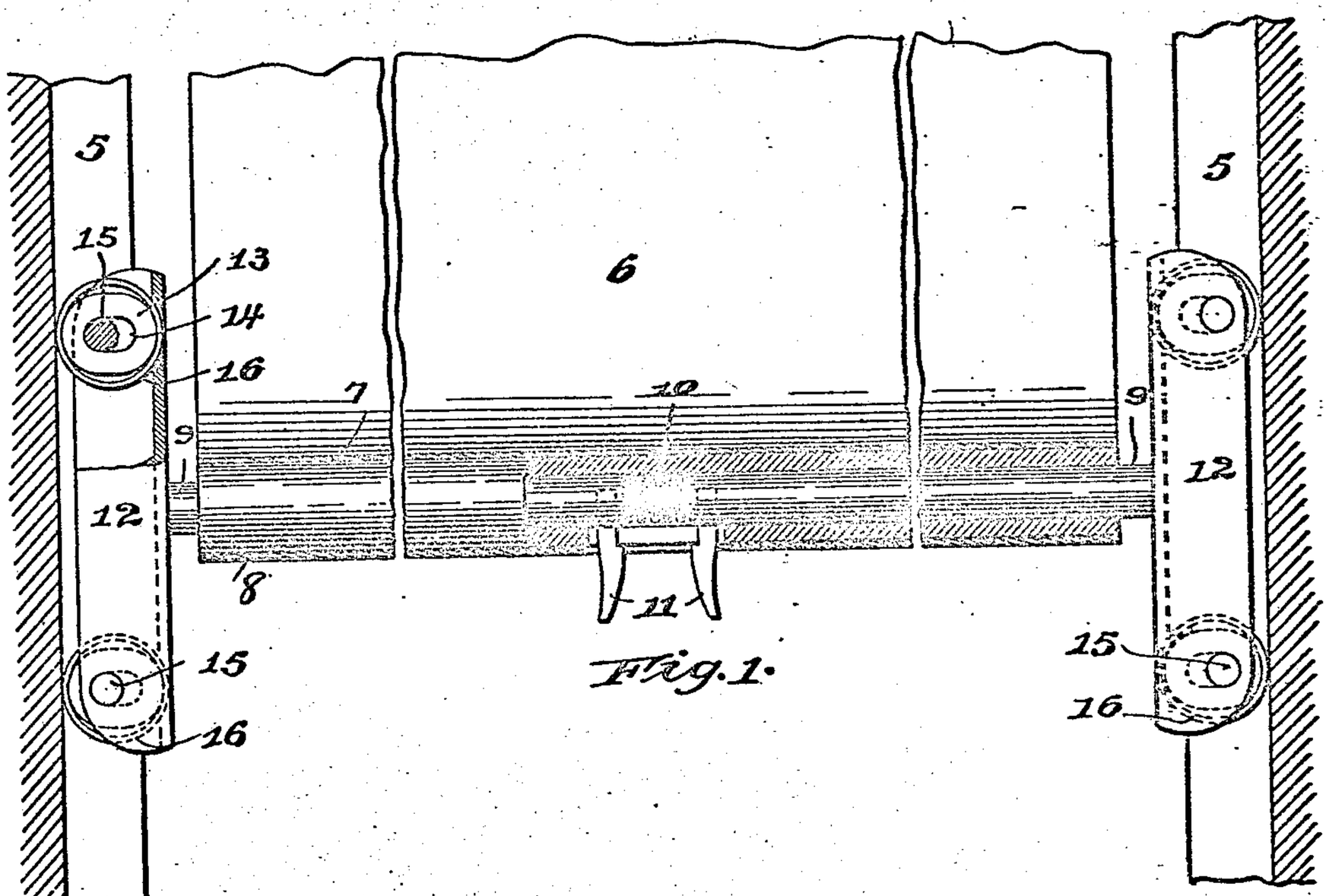

Fig. 1.

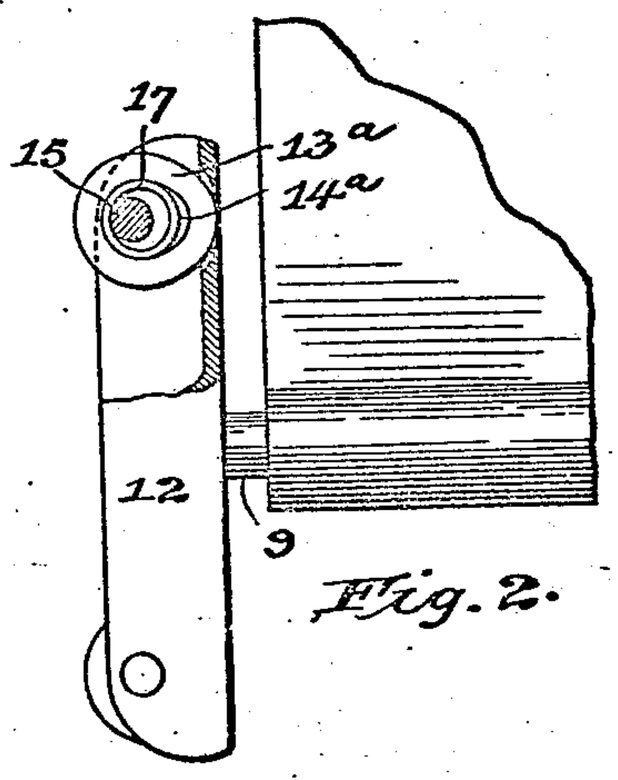

Fig. 2.

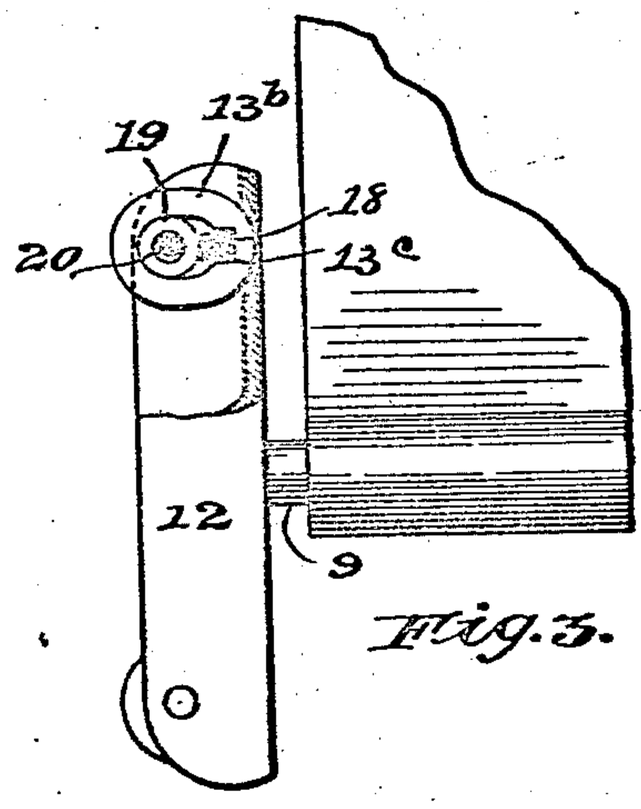

Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

DALE WHINERY, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO THE CURTAIN SUPPLY COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SHADE-FIXTURE.

No. 898,947. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed July 16, 1906. Serial No. 326,386.

To all whom it may concern:

Be it known that I, DALE WHINERY, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Shade-Fixtures, of which the following is a specification.

This invention relates to spring-actuated shades adapted for use in connection with car windows. The lower or free ends of shades of this class are provided with devices adapted to enter guide-ways in the sides of the window-frame to guide the shades during the adjustment thereof and to engage said guide-ways to hold the shades in positions of adjustment.

The object of the invention is to provide a simple and efficient holding and guiding device to guide the shades during the adjustment thereof, and to hold the shade in position for adjustment.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

The principle of the invention is illustrated in the accompanying drawings, wherein,—

Figure 1 is a side elevation, partly in section, of a portion of a window frame, a shade, and a holding device therefor embodying the invention; Fig. 2 is a detail, partly in section, showing a modification; and Fig. 3 is a view similar to Fig. 2, illustrating a further modification.

Referring to the drawings, 5 designates the usual guide-grooves in the sides of the window-frame, and 6 the lower portion of a spring-actuated shade.

7 designates the usual tubular curtain stick secured in a pocket 8 formed in and across the lower end of the shade, within which curtain stick are the usual oppositely disposed rods 9 normally forced apart by a spring 10 located between their inner opposed ends, said rods being provided with the usual pinch-handles 11, by which the rods may be drawn toward each other in opposition to the spring 10 to release the shade, in a manner well understood.

The outer projecting ends of the rods 9 are provided with shoes 12 disposed at right angles to the rods and arranged within the guide-ways 5, said shoes being substantially channel-shaped to accommodate the guide-engaging rollers mounted therein. In the form of the invention shown in Fig. 1 each of these rollers comprises an oval or oblong-shaped ring 13, the opening or aperture 14 of which has the same shape or outline as its periphery and engages a cross-pin 15 in the head. Surrounding the ring is a circular elastic ring or tire 16 which may be formed of a thin strip of resilient metal, this latter constituting the guide-engaging surface of the roller.

In operation, the upward pull of the shade roller spring tends to raise the fixture in its guide-groove, such raising tendency being resisted during each half revolution of the rollers by the constantly increasing radius between the center of the pin 15 and the point of the periphery of the elastic ring 16, which is contacting the guide-groove during the first half of each half revolution. The resiliency or elasticity of the circular ring 16 causes it to flatten slightly as the flat sides of the ring 13 come opposite the base of the guide-groove, whereby the fixture is elastically or yieldingly retained against the upward pull of the shade roller spring, and whereby the outward thrust of the ends of the fixture against the guide-grooves is opposed by an elastic or yielding resistance which maintains the fixture always in snug engagement with the groove and prevents rattling, noise and wearing loose of the parts.

In Fig. 2 the roller 13^a is shown as a ring having a substantially egg-shaped outline, with a correspondingly shaped opening or aperture 14^a and in this case the circular resilient spring 17 is located inside instead of outside the ring, said ring being directly engaged by the bearing pin 15. The operation of this form is the same in principle as that of the form shown in Fig. 1 and above described, the elastic resistance to the outward thrust of the fixture heads being effective during the engagement of the narrow or pointed portion of the roller with the guide, at which time the pin 15 tends to crowd and force the spring 17 into the narrow end of the opening 14^a.

Fig. 3 shows a still further modification wherein a substantially oval or oblong-shaped ring 13^b, similar to the ring 13, is employed; while the circular spring ring 17 of Fig. 2 is substituted by a small coil compression spring 18 that seats in a notch 13^c in the inner periphery of the ring 13^b and at its other end bears against a wearing ring 19 on

the bearing spindle 20. The principle and manner of operation of this form is substantially identical with that of Fig. 2.

It is obvious that the principle of the invention might be embodied in still other specific forms; and hence I do not limit the invention to the particular form shown, except to the extent indicated in specific claims.

I claim:

1. In a shade fixture, the combination with a shade stick and a spring-pressed shoe engaged therewith, of a non-circular roller mounted in said shoe on a lost-motion bearing, and a yieldable spring member incorporated with said roller and affording a yieldable spring resistance to the rotation thereof when engaged with the window casing guide, substantially as described.

2. In a shade fixture, the combination with a shade stick and a spring-pressed shoe engaged therewith, of a non-circular roller mounted in said shoe on a lost-motion bearing, and a circular flexible spring ring incorporated with said roller and affording a yieldable spring resistance to the rotation thereof when engaged with the window casing guide, substantially as described.

3. In a shade fixture, the combination with a shade stick and a spring-pressed shoe engaged therewith, of an oblong roller mounted in said shoe on a lost-motion bearing, and a circular flexible spring ring surrounding the periphery of said roller and affording a yieldable spring resistance to the rotation thereof when engaged with the guide of the window casing, substantially as described.

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