March 17, 1931. R. SAA 1,796,897

COMBINATION ADJUSTABLE SHADE AND SHADE ROLLER MOUNTING

Filed March 25, 1929

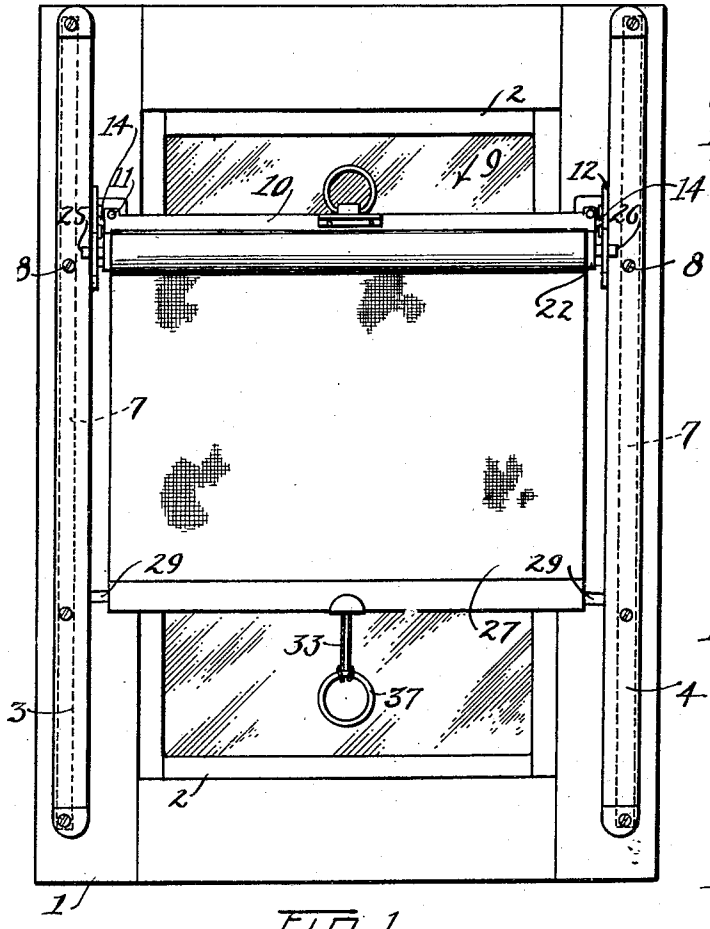


FIG. 1.

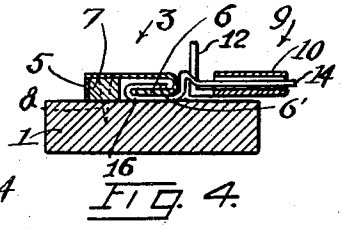


FIG. 4.

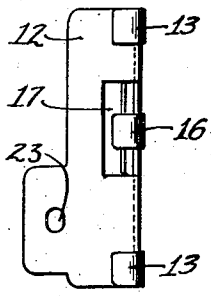


FIG. 5.

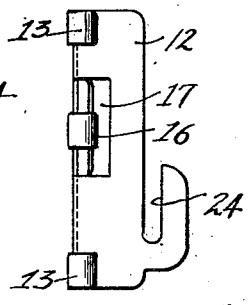


FIG. 6.

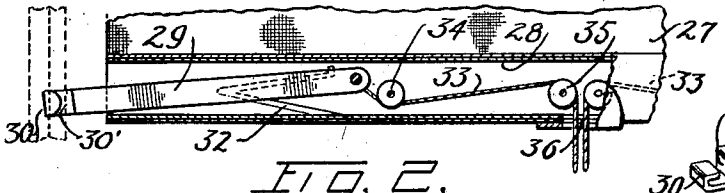


FIG. 2.

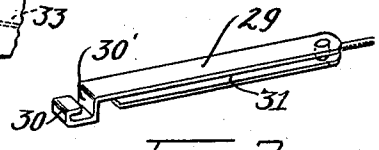


FIG. 7.

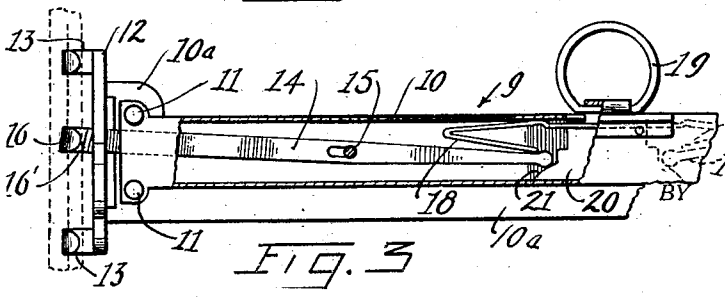


FIG. 3

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Patented Mar. 17, 1931

1,796,897

UNITED STATES PATENT OFFICE

ROBERT SAA, OF AUBURN, CALIFORNIA

COMBINATION ADJUSTABLE SHADE AND SHADE-ROLLER MOUNTING

Application filed March 25, 1929. Serial No. 349,873.

My invention relates to improvements in combination adjustable shade and shade roller mounting, and it consists in the combinations, constructions and arrangements hereinafter described and claimed.

An object of my invention is to provide a combination adjustable shade and shade roller mounting that makes use of two guides disposed at the sides of a window, these guides movably supporting a shade roller carrier and a shade. The connections between the guides and the shade roller comprise shoes that ride in the guides, certain of these shoes being movable for holding the shade roller mounting in adjusted position on the guide. A centrally-disposed ring is operatively connected to the movable shoes so that a movement of this ring will release the shoes and permit a movement of the shade roller mounting. In this way the shade roller may be adjusted to any position on the window.

I make use of a spring roller that will wind up the shade when the shade is released. At the bottom of the shade I dispose shoes that ride in the guides. These shoes are swingable into a gripping relation with the guides for holding the shade in extended position. A second ring is connected to these shoes, and a manipulation of the ring will release the shoes from the guides for permitting the shade to be raised or lowered.

Other objects and advantages will appear as the specification proceeds, and the novel features will be particularly pointed out in the appended claim.

My invention is illustrated in the accompanying drawing, in which

Figure 1 is a front elevation of the device;

Figure 2 is a section through the shade holding mechanism;

Figure 3 is a section through the shade roller holding mechanism;

Figure 4 is a transverse section through the shade holding mechanism; and

Figures 5, 6 and 7 are views of different parts of the device.

In carrying out my invention, I make use of a window frame 1 that carries the usual window sashes 2. At the sides of the frame 1 I mount guides 3 and 4. The particular shape of these guides in cross section is shown in Figure 4. It will be noted from this figure that each guide has a downwardly-extending portion 5 and a portion 6 bent back upon itself. The guide is mounted upon a strip 7, and the strip and guide are secured to the window frame 1 by screws 8 or other suitable fastening means.

In the guides I mount a roller shade support 9. This support comprises a tubular casing 10 (see Figure 3) substantially rectangular in cross section. The tube is made of a front and a back piece if desired, these being secured to each other at their ends by rivets 11 or other suitable fastening means. The back piece of the tube 10 is larger than the front piece and is designated by the reference numeral 10*a*. Each end of this back piece 10*a* has a portion 12 bent at right angles, and this portion is provided with hook-shaped members 13 that slidably engage with the turned-in number 6 on the guide 3 (see Figure 4). In this way the roller shade mounting is slidably carried by the guides.

I will now describe the means for holding the mounting in adjusted position. In Figure 3 I show a lever 14 pivotally mounted within the tubular member 10 at 15. There are two levers 14, and each carries a hook-shaped end 16 (see Figure 3). The levers project through the open end of the tube 10 and through openings 17 in the ends 12.

A spring 18 has its ends bearing against the inner ends of the levers 14. This tends to swing the hook-shaped ends 16 into engagement with the edge of the portion 6 and the shoulders 16′ of the hooks into engagement with the curved portion 6′ of the guides 3 and 4. This will lock the support 9 in adjusted position.

The hook-shaped ends 16 may be moved into released position when a ring 19 is moved upwardly from the tubular member 10 (see Figure 3). This ring is carried by a member 20 that has cam-shaped edges 21. These edges engage with the inner ends of the levers 14, and when the ring 19 is moved they will rock the levers 14 so as to free the hook-shaped ends 16. The support 9 may now be raised or lowered in the guides 3 and 4.

In Figure 1 I show a shade roller 22 as being carried by the support 9. The ends 12 have an opening 23 and a slot 24 (see Figures 5 and 6) for receiving the ends 25 and 26 of the shade roller. The roller carries a spring (not shown) that tends to wind a shade 27 around the roller as soon as the shade is released.

I provide means for guiding the lower part of the shade and for holding it in adjusted position. Referring to Figure 2, it will be noted that a tubular member 28 is mounted in the bottom of the shade 27, and that this tubular member carries arms 29, the latter having hook-shaped ends 30 that engage with the portions 6 of the guides 3 and 4 for holding the shade in adjusted position.

Figure 7 shows the arm 29 as being provided with a channel 31 for receiving a spring 32 (see Figure 2). This spring tends to swing the inner end of the arm upwardly for causing the hook 30 to grip the inner edge of the portion 6 and the shoulder 30′ to engage with the curved portion 6′ of the guides 3 and 4 for holding the shade against movement.

Each arm 29 has a cord 33 connected to its inner end, and this cord is passed over pulleys 34 and 35 and then out through an opening 36, the cords being tied to a ring 37. A movement of the ring 37 downwardly will swing the arms 29 into a released position so that the spring in the roller 22 will be able to wind the shade 27 upon the roller.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

As already stated, the support 9 may be raised and lowered by first releasing the hooks 16. The shade 27 can be raised or lowered with respect to the support 9. In lowering the shade, it is merely necessary to pull downwardly upon the ring 37. The first movement of the ring 37 in a downward direction will free the hooks 30, and further movement will cause the shade to be moved downwardly. A quick releasing of the ring 37 will hold the shade in extended position, because the hooks 30 will grip before the spring in the shade roller has a chance to wind up the shade. A gentle downward pressure upon the ring 37 will free the hooks 30, and if this pressure is continued but still is kept weak enough to permit the spring to wind the shade up, the shade in this manner can be rolled upon the shade roller 22. In this operation it is only necessary to exert a sufficient pressure to keep the hooks 30 free. A quick releasing of the ring 37 will lock the shade in its new position.

Although I have shown and described one embodiment of my invention, it is to be understood that the same is susceptible of various changes, and I reserve the right to employ such changes as may come within the scope of the invention as claimed.

I claim:

A device for holding and guiding the bottom of a shade and comprising a pair of guides, each guide being J-shaped in cross section, a tubular shade stick having a central opening therein, arms disposed in said stick and having hook-shaped ends for engaging with one edge and a curved portion of each guide, said arms having their greater portions channel-shaped in cross section, leaf springs partially received in the channels and bearing against said arms and said stick, cords secured to the inner ends of said arms, idler pulleys carried by said stick, said cords being passed over said pulleys and out through the stick opening, and a ring secured to the free ends of said cords and being movable for releasing said hooks from said guides, whereby the hooks will act as guides for the stick.

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