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R. E. PIPPIN

ADJUSTABLE SHADE ROLLER SUPPORT

Filed March 19, 1927

Fig. 1.

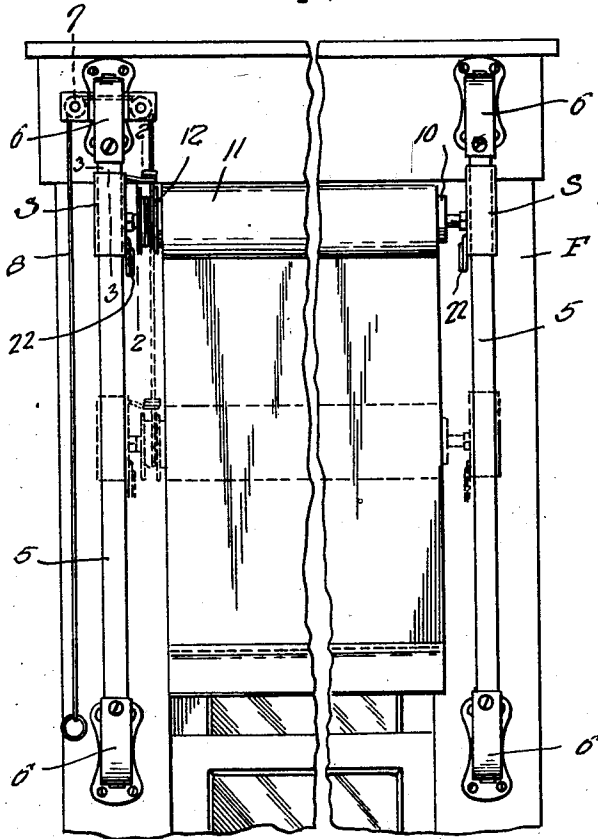


Fig. 2.

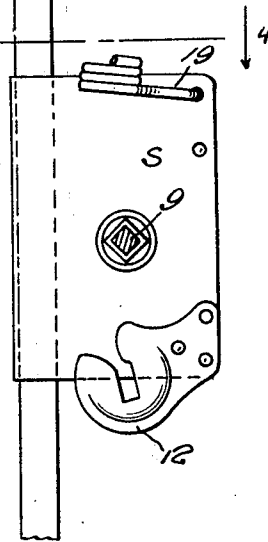


Fig. 3.

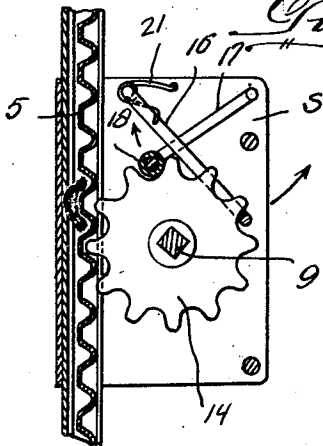
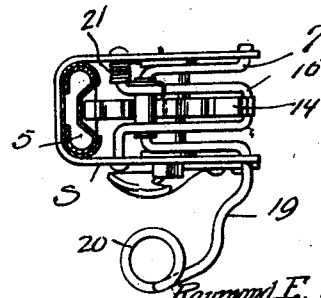


Fig. 4.



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ADJUSTABLE SHADE-ROLLER SUPPORT.

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The present invention relates to an adjustable supporting structure for operation on a rack bar, and for use in conjunction with a structure such as is shown in Letters Patent 1,560,402, issued November 3, 1925, to B. T. Britt.

An object of the invention lies in the provision of a device, which operates to better advantage than the structure shown in said Letters Patent and which may be manufactured more cheaply and will be more efficient and reliable in its operation.

With the above and numerous other objects in view, as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is an elevation of a window frame showing my structure mounted thereon.

Figure 2 is a detail section, taken substantially on the line 2—2 of Figure 1.

Figure 3 is a detail section, taken substantially on the line 3—3 of Figure 1, and

Figure 4 is a detail section, taken substantially on the line 4—4 of Figure 2.

Referring to the drawings in detail, it will be seen that the numerals 5—5 denote rack bars supported by brackets 6, to extend vertically one on each side of the window frame F. One of the upper brackets 6 has mounted therein pulleys 7, over which are trained a cable or the like 8. U-shaped slides F have journaled through the sides thereof a square shaft 9, on which is mounted a roller 10, for a shade 11. At one end of the roller there is mounted a spool or drum 12, about which the cable 8 is partially wound. On the shaft 9, within the slide members F there are disposed ears 14, engaging racks 5. Obviously, by pulling on the cable 6, the square shaft is rotated, and causes the rotation of both of these rack gears 14, for raising the roller 10 and at the same time unwinding the shade 11 therefrom. In one of the U-shaped slide members F, there is mounted a U-shaped catch 16, the ends of which are journaled in the sides of the slide member and the bight of which is engageable with the teeth of the rack gears 14. A second U-shaped member 17 has its ends journaled in the sides of the

slide F and on its bight has journaled a roller 18, engageable in the teeth. An arm 19 extends from one terminal of the U-shaped member 17 and terminates in an eye 20, through which the cable 8 is extended. A spring 21 is engaged with the member 16, to normally hold it in engagement with the teeth of the rack gear 14. When the cable 8 is pulled, it swings the U-shaped member 17 to disengage from the rack gear 14, so that the roller 18 engages the arms of the U-shaped members 16 to lift it out of engagement with the teeth of the rack gear. This structure operates much more easily than the structure disclosed in said Letters Patent, as will be quite apparent.

Brackets 22 are attached to the slides F at the bottom thereof and if desired may be formed integrally therewith so that an ordinary spring shade roller may be engaged therein. This structure would preferably be used when the roller 10 is not used.

It is thought that the construction, operation and advantages of this invention will now be quite apparent to those skilled in this art, and it will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to, without departing from the spirit or scope of the invention as herein-after claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. A slide member for a rack bar comprising a U-shaped member, a gear mounted in the U-shaped member for meshing with the rack bar, a U-shaped member having its ends journaled in the sides of the first U-shaped member and engageable with the gear, a third U-shaped member having its ends journaled in the sides of the first U-shaped member and its bight engageable with the gear and with the sides of the second U-shaped member.
2. A slide member for a rack bar comprising a U-shaped member, a gear mounted in the U-shaped member for meshing with the rack bar, a U-shaped member having its ends journaled in the sides of the first U-shaped member and engageable with the gear, a third U-shaped member having its ends journaled in the sides of the first U-shaped member and its bight engageable with the gear and with the sides of the second U-

shaped member, a spring associated with the second U-shaped member normally holding it engaged with the gear.

3. A slide member for a rack bar comprising a U-shaped member, a gear mounted in the U-shaped member for meshing with the rack bar, a U-shaped member having its ends journaled in the sides of the first U-shaped member and engageable with the gear, a third U-shaped member having its ends journaled in the sides of the first U-shaped member and its bight engageable with the gear and with the sides of the sec-

ond U-shaped member, a spring associated with the second U-shaped member normally holding it engaged with the gear, an arm on one terminal of the third U-shaped member and having an eye therethrough so that the third U-shaped member may be swung to disengage it from the gear and engaged with the arms of the second U-shaped member for releasing the second U-shaped member from the gear.

In testimony whereof I affix my signature.

RAYMOND E. PIPPIN.