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ROBERT B. CRUMP, OF HOBOKEN, NEW JERSEY.

ADJUSTABLE SHADE-ROLLER.

1,238,642.

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To all whom it may concern:

Be it known that I, ROBERT B. CRUMP, a citizen of the United States, and a resident of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and Improved Adjustable Shade-Roller, of which the following is a full, clear, and exact description.

This invention relates to shade rollers, curtain poles or the like and has particular reference to the construction of a window shade roller adapting it not only for endwise adjustment, but also for quick and easy attachment to or against the side walls of a window frame without the use of nails, screws or other fasteners which would tend to mar the window frame.

Among the objects of the invention, therefore, is to provide securing means for the ends of a shade roller whereby the roller is adapted to be gripped to or against the vertical faces of the window frame.

Another object of the invention is to provide facilities for determining the length of the roller and the means for connecting the shade thereto without tacks or the like.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a vertical longitudinal section of a preferred embodiment of the invention;

Fig. 2 is a vertical transverse section of the same on the line 2—2;

Fig. 3 is a side elevation of a modification of the invention;

Fig. 4 is a vertical transverse section of the same on the line 4—4;

Fig. 5 is a perspective view of a modified form of gripping bracket adapted to support also a lace curtain pole; and

Fig. 6 is a front elevation of the same shown in connection with the end of the shade roller.

Referring now more particularly to the drawings, I show a main roller comprising two tubular telescopic sections 10 and 11. The barrel or cylindrical portions of these

sections are made preferably of sheet metal or its equivalent. In the outer end of each section is secured a head 12 or 13, each having an outwardly projecting flange 14 and a central hole 15.

16 and 17 indicate the two main parts of a central telescopic supporting rod which extend through the holes 15 of the roller heads and around which the roller is journaled for rotation in the usual practice of the invention. The rod section 16 has pin and slot slip joint connection with a bracket 18. Said bracket is of disk form with a central socket or hub 19, into which the outer end of the section 16 projects. The face of the disk portion of the bracket next to the window frame W is faced with a ring 20 of leather, soft rubber, felt, cork or some other suitable gripping material, but which will not mar or damage the paint or varnish of the window frame.

The opposite end of the other section 17 of the rod is fitted rigidly and permanently to a bracket 21 of a nature similar to the bracket 18 and having a gripping surface member 22.

The inner end of the rod section 17 is provided with a washer 23 which surrounds the section 16. A collar 24 is secured to the section 16 between the washer 23 and the outer end of the section 16, and between the collar and the washer is located a strong expansion spring 25 tending to elongate the rod or cause the endwise separation of the sections 16 and 17. The force of this spring 25 is sufficient to cause the brackets 18 and 21 to hold firmly against the window frame, as indicated, preventing the downward pull upon the window shade from dislocating the roller and also preventing the rotation of the rod upon which the roller is journaled.

The head 12 is shown provided with a plurality of momentum and gravity operated pawls 26 which cooperate with holes or notches 27 formed in the rod section 17 and operate in the usual manner to control the rotation of the roller.

A spring 28 is coiled around the rod and is secured at one end at 29 to the rod section 17 and at its other end at 30 to the roller section 10 by hooking through the same within the inner surface of the surrounding section 11. This spring 28 serves to automatically wind up the shade upon the roller when the shade is set free as usual.

The flanges 14 tend to cause the shade to roll up straight upon the roller without special care on the part of the operator.

The shade indicated in dotted lines at S 5 may be provided at its upper end with a loop s through which a binding rod formed of two parts 31 and 32 is adapted to pass, the binding rod being held in place by passing through holes 33 in the roller heads and 10 a plurality of keepers 34 secured to the roller section 11. The shade may be punched to admit the keepers to pass through.

The modification of shade connection indicated in Figs. 3 and 4 shows a groove 35 15 formed longitudinally along the roller sections 10' and 11', whereby the loop s is countersunk and thereby a neater roll is provided for the shade. The binding rod in this form of the invention is the same as 20 above described, cooperating with the head flanges and keepers 34', consisting of small strips of metal soldered or otherwise secured to the surface of the main roller.

In fitting this device to a window, the 25 roller section 11 is withdrawn from the section 10. The supporting rod is then adjusted to a length somewhat greater than the width of the window between the walls W. The excess of length thus provided will 30 depend upon the force of the spring 25. The collar 24 is then adjusted against the spring 25 at the proper tension and locked by means of a set screw 24' or its equivalent. The approximate length of the sup- 35 porting rod is thus determined, but the rod is contractible against the force of the spring 25 for the purpose of putting the roller in place. After the length of the rod is determined, the section 11 will be returned 40 and the bracket 18 will be applied to its place. Then by compressing the spring 25, the roller will be put in place with the brackets 18 and 21 occupying their desired position and the spring 25 will then hold 45 the device as already set forth, the shade in the meantime having been put in place upon the roller as indicated.

The modified form of bracket in Figs. 5 and 6 comprises a plate 36 having up-

wardly and downwardly projecting ears 37 50 and 38, each carrying a pad 39 of gripping material similar to the pads 20 and 22. The supporting rod is connected to the center of the plate 36 and serves the same purpose 55 as fully set forth above. The ears 37 and 38 provide means for connecting bracket extensions 40 and 41 secured together at 42 and providing a hook 43 for supporting a curtain rod (not shown). The bracket has sufficient 60 length vertically to provide sufficient grip to prevent the weight of the curtain and rod from turning or tilting the supporting rod 17 around its axis and the support of the roller is accomplished in the same manner 65 as in Figs. 1, 2, and 3.

I claim:

1. The herein described shade roller comprising a pair of tubular telescopic members, each having a head at its outer end, a 70 telescopic supporting rod, on the ends of which the heads are journaled, a spring surrounding the rod and having its ends connected respectively to the rod and the roller, said roller connection comprising a hook 75 projecting through the shell of the inner telescopic member within the inner surface of the outer telescopic member, controlling pawls pivoted to one of the heads, said rod having formed therein a plurality of holes 80 with which said pawls are adapted to cooperate, and means to support the ends of the supporting rod.

2. In a shade roller, the combination of a supporting rod comprising two telescopic 85 sections, a strong expansion spring surrounding one of the sections and abutting against the inner end of the other section, a collar adjustably connected to the first mentioned section and abutting against the other 90 end of the spring, said spring serving to tend to separate the rod sections, a pair of brackets cooperating with the ends of the rod sections and adapted to grip squarely 95 against the side walls of the window frame, and a pair of telescopic roller sections surrounding and journaled upon the end portions of the supporting rod.

ROBERT B. CRUMP.