

E. V. N. TOMASULO.
WINDOW SHADE GUARD.
APPLICATION FILED FEB. 4, 1920.

1,379,663.

Patented May 31, 1921.

Fig. 1.

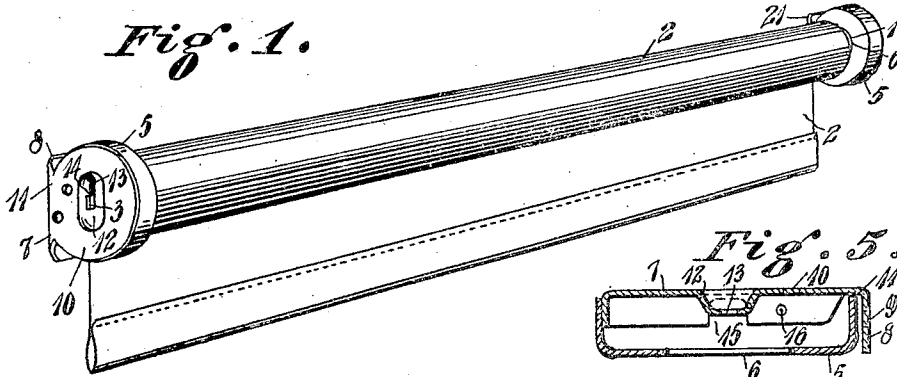


Fig. 5.

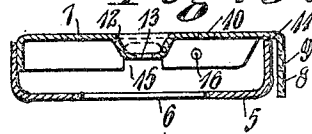


Fig. 2.

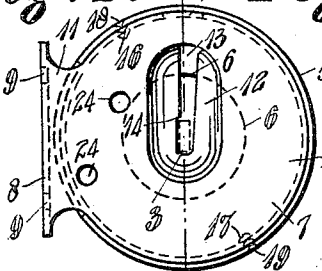


Fig. 3.

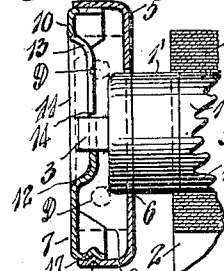


Fig. 4.

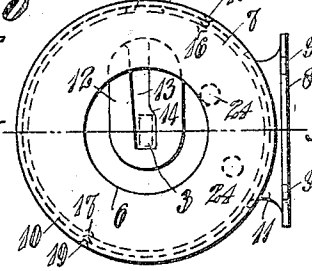


Fig. 6.

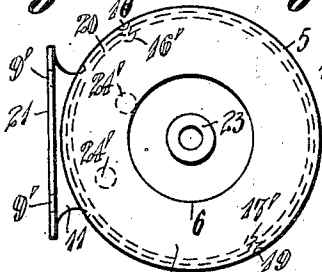


Fig. 7.

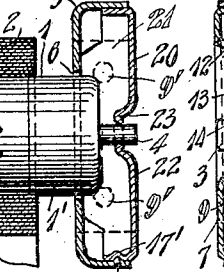


Fig. 8.

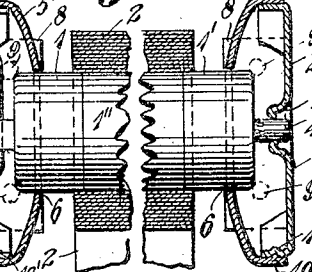


Fig. 9.

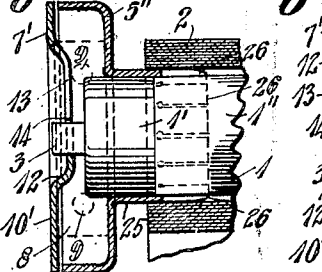


Fig. 10.

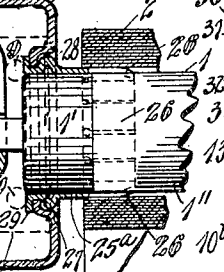
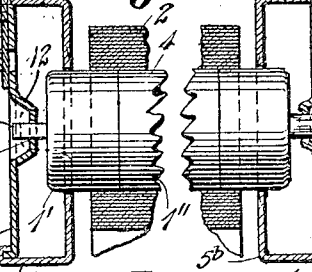


Fig. 11.



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EPIFANIO V. N. TOMASULO, OF CINCINNATI, OHIO.

WINDOW-SHADE GUARD.

1,379,663.

Specification of Letters Patent.

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Application filed February 4, 1920. Serial No. 356,199.

To all whom it may concern:

Be it known that I, EPIFANIO V. N. TOMASULO, a subject of the King of Italy, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Window-Shade Guard, of which the following is a specification.

My invention relates to window-shades and the like, and the objects of my improvement are to prevent the edges of the shade from scraping against the shade-brackets at the ends of the shade roller, thereby avoiding wrinkling, tearing and raveling of the shade material when the shade winds unevenly on the roller; to improve the appearance of the shade mounting; and to provide for these purposes by simple means which can be readily installed in the same manner, substantially, as are the ordinary unguarded shade-brackets. Other objects will appear in the course of the ensuing description.

I attain these objects by the device illustrated, for example, in the accompanying drawing, in which—

Figure 1 is a perspective view of a shade equipped with my invention as I prefer to construct it;

Fig. 2 is an outside elevation of the left-hand or detent bracket and guard;

Fig. 3 is a vertical cross-section of the same on a plane corresponding to the line 3—3 of Fig. 2, parts of the shade-roller and shade being also shown;

Fig. 4 is an inside elevation of said bracket and guard;

Fig. 5 is a horizontal cross-section of the same on a plane corresponding to the line 5—5 of Fig. 4;

Fig. 6 is an inside elevation of the right-hand or spindle bracket and guard;

Fig. 7 is a vertical cross-section of the same on a plane corresponding to the line 7—7 of Fig. 6, parts of the shade-roller and shade also being shown;

Fig. 8 is a complete cross-section corresponding to Figs. 3 and 7, but showing a modification in which the guards are convex on their inner shade-engaging sides;

Fig. 9 is a similar section of the left-hand bracket and guard, modified in that the guard is fixed to the roller instead of the bracket, and showing by dotted lines at A how this guard may be convex as in Fig. 8;

Fig. 10 is a similar view showing a further modification in which the separate

guard rotates on the shade roller, and showing by dotted lines at B how this guard may be convex; and

Fig. 11 is a horizontal cross section corresponding to Fig. 5, but with both brackets and guards and parts of the roller and shade shown, and showing a modification in which the guards are permanently closed and are slipped onto separate brackets previously attached to the window-frame.

My invention involves the use of the ordinary well known shade roller 1 and shade 2, having at the left end the detent stud 3 projecting from the spring-motor mechanism mounted in the shade roller as usual, and at the other end the spindle 4. Any shade roller answering to this description may be used with the particular bracket and guard elements specifically shown and described herein as an example of my invention.

As shown in Figs. 1 to 7, inclusive, the guard-caps 5 are alike at both ends of the shade roller, being of shallow cup shape with the bottom of the cup, which is the inner shade-engaging part, flat and smooth and merging into the shell of the cup in a smooth, preferably rounded corner. This part has the central opening 6 slightly greater in diameter than the exterior of the shade-roller 1. The bracket 7 comprises the base 8 like that of the usual shade-bracket, with the two holes 9 through which it is fastened to the window-frame, and the outstanding part 10 integral with the left-hand edge of the base 8 and of general shallow cup shape with the bottom of the cup at the left and the shell projecting to the right, but discontinued back next to the base 8 throughout the extent of the junction part 11 between the part 10 and the base edge.

Beginning at the center of the bottom part of this cup, and running up close to the top thereof, the material of the bottom is pressed in to the right, forming the elongated, round-ended depression in the outer side, and accordingly such an extension 12 on the inner side. This extension 12 has the slot 13 cut down from its top to the center of the bracket part 10, with the slight shoulder 14, like the usual shade-bracket, to receive and hold non-rotatable the detent stud 3 of the shade roller 1. The shell of this cup has the recess 15 at the top to permit the detent stud 3 to swing down into the slot 13. Just to the rear of this recess 15 is the slight dent

16, and diametrically opposite, near the bottom, is a like dent 17, these dents being pressed in the material of the shell radially inwardly thereof. The caps 5 have similar
 5 dents 18 and 19 pressed radially inwardly in their shells. The cap 5 fits snugly on the shell of the part 10, like the lid of a box; the dents 18 and 19 snapping into the dents 16 and 17, respectively, holding the cap
 10 firmly to the bracket.

The right-hand bracket 20 has the base 21 with holes 9' like the left-hand bracket 7, and the outstanding part 22 integral with the right-hand edge of the base 21, cup-shaped, with the cup shell discontinued next
 15 to the base, as in the bracket 7. Also, this shell has the top and bottom dents 16' and 17', respectively, like the other bracket. In the center of the cup-bottom is the inwardly
 20 extending circular boss 23, pressed in the bracket material, with the central opening circular to receive the shade-roller spindle 4 for free rotation, as in the usual right-hand bracket.

25 Both brackets 7 and 20 also have in their cup-bottom parts 10 and 22, respectively, the two holes 24 or 24' whereby the brackets may be secured to the inner faces of the window-jamb, as is sometimes desirable,
 30 like the ordinary shade brackets.

The bracket parts 7 and 20 of the device are fastened to the window-frame, by means of either set of holes 9, 9' or 24, 24', as conditions may call for, with the open sides of
 35 their cup-shaped bracket parts facing each other across the window. The caps 5 are slipped onto the opposite shade roller ends, with their open sides out toward the roller ends. These caps 5 are pushed in against
 40 the respective ends of the shade 2 that is rolled up on the roller 1 as is usual in mounting a shade. There is ample room for these caps to be pushed inward in this way to pass the cup-shaped bracket parts 10
 45 and 22 as the shade-roller is inserted in them in the usual way; because a shade, properly mounted, is not as wide as the extreme length of the roller, but extends only to or slightly beyond the edges of the shade-roller ferrules
 50 1', as shown. The spindle 4 is inserted endwise into the circular opening of the boss 23 in the right-hand bracket 20. Then the other end of the shade-roller 1 is swung down, bringing its detent-stud 3 down
 55 through the recess 15 and into the slot 13, coming to rest therein under the shoulder 14 as is usual with window-shades of this kind. Then the guard-caps 5 are slipped along the shade-roller 1 to the right and left, onto their
 60 bracket parts 22 and 10, respectively, being turned around thereon until their dents 18 and 19 snap into the dents 16, 17 and 16', 17', respectively, on the parts 22 and 10. This completes the mounting of the shade.

65 The smooth inner sides of the guard-caps

5 avoid wrinkling, tearing or raveling of the shade edges when the shade runs unevenly to right or left in winding up under the action of the shade-roller motor mechanism. And even if the shade edges climb over these 70 smooth inner sides, they encounter only the smooth, rounded corners of the caps 5, and the smooth exterior surface of the shells of these caps, from which the shade edges quickly slide back into their proper places 75 between the guard-caps 5.

In the modification of Fig. 8, the details are the same as in the preceding example, and are accordingly numbered the same, except that the guard-caps 5' have their inner
 80 smooth sides, or cup-bottom parts, dished downwardly of the cup, so that these sides are convex to the adjacent shade edges, tending to prevent climbing of the shade edges up onto the rim of the guard at either side. 85

In the example of Fig. 9 the bracket 7' is like that of the preceding examples, with corresponding details numbered the same, except that the cup-shell part is omitted. The guard-cap 5'' is cup-shaped, with its
 90 open cup-top part very close to the outstanding part 10' of the bracket, and with the collar 25 integral with its central-opening edges, where the opening 6 is in the cap 5 or 5' of the preceding examples. This 95 collar is extended inward from the cap 5'' far enough to lap over the wooden part 1'' of the roller 1, where it has resilient fingers 26, formed by longitudinal slits in the collar material, and which grip radially inwardly into the wood of the roller. 100

This shade mounting is installed substantially in the same way as the other examples, the cap 5'' being slipped onto the roller 1 as far as the shade edges will allow, thus
 105 being clear of the bracket inner extension 12 in the left hand bracket, and of the boss 23 of the left-hand bracket. After the shade is hung, these caps are then pulled out until their rims come very close to the bracket
 110 parts, as before mentioned. These caps 5'' thus turn with the shade-roller 1, with smooth inner sides for the shade edges to engage, traveling at approximately the speed of these edges, and with the rounded corners 115 and smooth exterior shell surface to receive the shade edges if they climb thereto.

These inner sides of these guards may be convex instead of flat, as indicated by the dotted lines at A, above and below, in Fig. 120 9, with the same advantages as just stated about Fig. 8.

In the example of Fig. 10 the bracket is the same as in the preceding example; but the guard-cap 5^a is rotatably mounted on its
 125 collar 25^a by means of an offset annular part 27 around the central opening of the cap 5^a loosely fitting between an annular bead 28 around the collar 25^a a short distance in from the end thereof nearest to the shade- 130

bracket, and an annular flange 29 turned up on this end of the collar 25^a. The offset of the part 27 comes over the bead 28, leaving the inner side of the guard practically smooth toward the shade edges. This collar has the spring fingers 26 as in the other example; and is slipped on to bring the cup 5^a back out of the way of the bracket extensions as just described for the other example. The guard-cap, turning independently of either the shade-roller or the shade-brackets, is free to rotate practically with the same lineal velocity as that of any part of the shade edge that happens to engage with it due to uneven winding, thereby tending to reduce the abrasion even below that of the guards of the preceding examples.

Also, the inner sides of these guards may be convex instead of flat, as at B, above and below, in Fig. 10.

Rotary guards such as shown in Figs. 9 and 10 are disclosed and claimed in my co-pending application, Serial No. 359,789, filed February 19, 1920.

In Fig. 11 is shown a further modification of this invention in which the bracket parts corresponding to the parts 10 and 22 of the example of Figs. 1 to 8, inclusive, or to the part 10', for instance, of Figs. 9 and 10, are fastened permanently in the guard-caps 5^b by having the rims 30 of the caps turned in around out-turned annular flanges on the rims of these bracket parts 10^b and 22^b, which are formed separately from their base parts 8^b and 21^b, respectively, which have shanks 31 projecting forwardly into clips 32 pressed out from the material of the bracket part 10^b or 22^b, as the case may be. Other details of this example correspond to details of preceding examples, like which they are numbered. This example permits the hollow parts to be slipped onto the shade-roller ends, which they receive in their central openings 6; and then these hollow parts are slipped onto the shanks 31 of their base parts 8^b and 22^b. The annular seam around the rim 30 is recessed to permit the shank to pass into its clip 32, as at 33. The operation of a shade with this guard will be substantially the same as with the example of Figs. 1 to 7; or, the inner sides of the hollow parts may be convex, as shown by the dotted lines at C, above and below, in Fig. 11, thus operating as was described for Fig. 8.

Numerous examples have been given of embodiments of my invention, all of which have been explicitly illustrated and described, but further modifications may occur under different conditions, as with shade-rollers different from that herein used for example, or in different windows, or for other reasons, and therefore, while certain constructional details are deemed preferable in connection with my invention, and I have

shown and described these specifically in elucidating the construction and use of my invention, as is required, I do not wish to be understood as being limited to such precise showing and description, but having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a shade roller mounting bracket of a window-shade guard extending around an end of the shade-roller and around the adjacent part of the shade-roller bracket for the purpose described.

2. In a combination with a window-shade, its roller, and the roller bracket, a guard extending around and engaging the adjacent parts of the roller and bracket.

3. In a window-shade mounting a bracket having a part to receive an operative part of the shade and a part to be attached to the window-frame or jamb, and a guard adjacent to said bracket and surrounding the shade-roller, with a substantially smooth end presented toward the shade radially of the roller and a wide periphery on said guard extending longitudinally of the said roller.

4. In a window-shade roller mounting a guard element having a smooth face presented toward the window shade edge in a direction radial of the roller, said element having a periphery of substantial width extending longitudinally of the roller and adapted to receive the shade edge as it climbs over said smooth face, without substantial defacement of said edge, a bracket and means for mounting a shade thereon, said guard being located at the end of the shade-roller.

5. In a window-shade mounting, a bracket, a guard element, mounted over and surrounding the bracket with a substantially smooth face presented toward the shade edge, between said edge and the window-shade bracket, and having a substantially smooth periphery of substantial width to receive the shade edge as it climbs over said smooth face, without substantial defacement of said edge or engagement with the bracket.

6. In combination with a window-shade, its roller, and the roller brackets at opposite ends of the roller, guards extending around the adjacent parts of the roller and brackets so as to form a flange at the ends of the roller and a housing around the bracket.

7. A window-shade guard comprising an element positioned near the end of the shade-roller and presenting a convex face toward the body of the roller, a shade mounting bracket, said guard being mounted on the bracket.

8. A window-shade guard comprising an element positioned on the end of the shade-roller and presenting a convex face toward

the body of the roller and having a shade-edge-conserving periphery extending from the convex face, said guard having its convex face radial of the roller and its periphery extending longitudinally of the roller.

9. In a window-shade guard, a bracket with a base for attachment to the window-frame or jamb, and an outstanding part of cup-like formation, with the open end of the cup toward the shade roller and a part to receive an operative part of the shade-roller in the bottom of the cup, and a cup-like guard-cap with an opening in the bottom of the cup and with the shell of the cup fitting on the shell of the bracket cup-

part, said opening allowing the shade-roller to extend through for operative engagement of its operative part in said part of the bracket.

10. In a window-shade guard, a hollow guard element comprising means to engage an operative part of the shade-roller and having an opening admitting said roller to said engaging means, and a bracket part to be attached to the window-frame or jamb, comprising engaging means to engage with said hollow guard, and said hollow guard having means to engage with said engaging means on the bracket part and support said hollow guard on the bracket part.

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