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O. W. LEE

1,824,673

WINDOW SHADE OPERATING DEVICE

Filed April 26, 1930

Fig. 1.

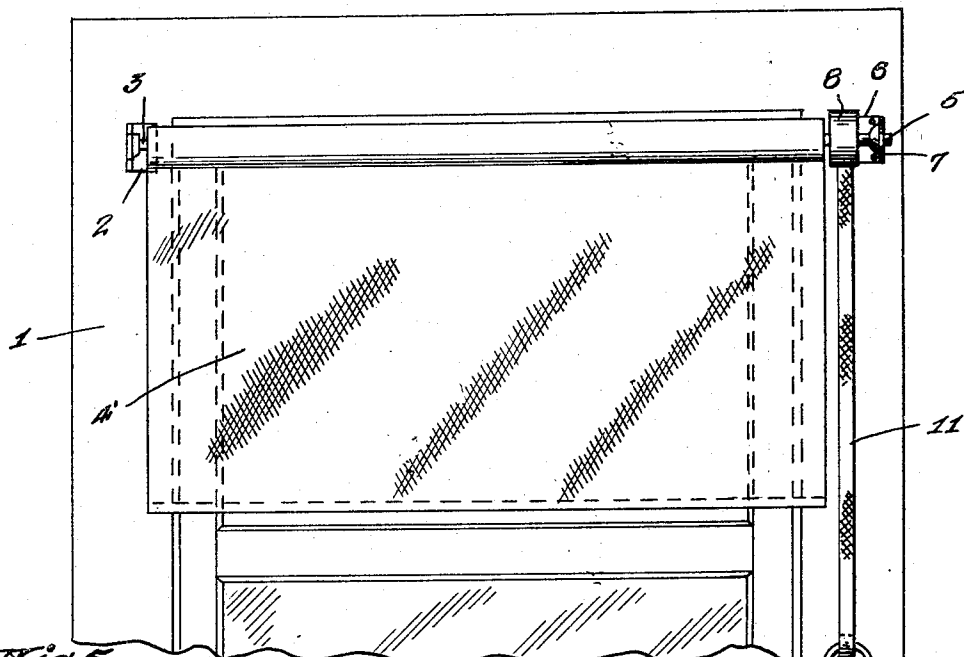


Fig. 5.

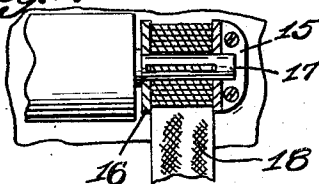


Fig. 6.

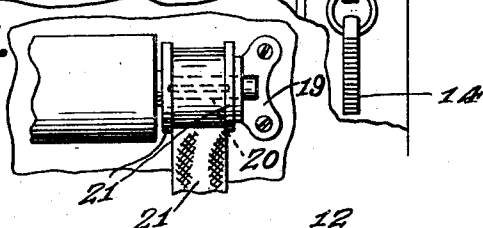


Fig. 2.

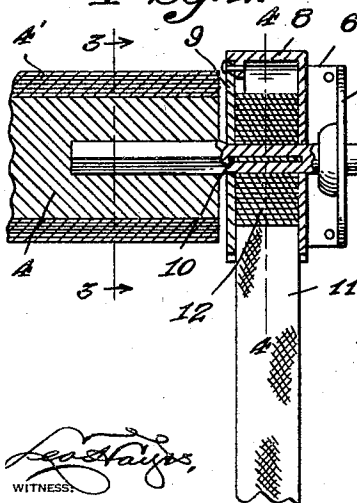


Fig. 3.

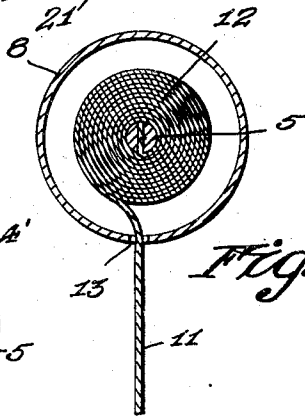
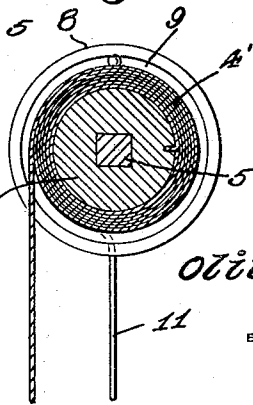


Fig. 4.

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WINDOW SHADE OPERATING DEVICE

Application filed April 26, 1930. Serial No. 447,710.

The object of this, my present invention, is the provision of simple means whereby a spring wound window shade may be easily and conveniently raised or lowered without necessitating the operator engaging the shade with the liability of soiling, creasing or tearing the same.

A further object is the provision of an operating means for window shades that includes a slotted pintle fixed in one end of the shade roller and suitably supported on the window casing and to which there is attached and wound therearound a tape or the like, the pintle being of a materially less cross sectional diameter than that of the roller, a revolution of the pintle will cause the roller to also make a complete revolution so that the tape or pull element travels a smaller distance than that of the shade, and whereby the necessity of the operator bending or stooping over to reach the shade in the raising or lowering thereof will be dispensed with and further whereby the tape or pull element when held during the operation thereof will cause the dogs in the second end of the roller to engage with the pintle in the usual manner and thereby hold the shade when fully or partly raised or lowered.

A further object is the provision of a bearing support for the fixed pintle of a spring wound shade roller on which is secured and wound one end of a tape which depends from the pintle along one side of the window trim and terminates in a pull element, the tape being wound around the pintle in the same direction as the shade is wound around the roller and whereby a short pull upon the tape will cause the unwinding of the shade from the roller, the said shade being held in its raised or lowered positions by the usual cam dogs for the second pintle to which is fixed the spring in the roller.

To the attainment of the foregoing the in-

vention consists in the improvement herein-after described and definitely claimed.

In the drawings:

Figure 1 is an elevation of a window casing equipped with the improvement.

Figure 2 is a detail longitudinal sectional view through the improvement and the end of the roller whose pintle is journaled therein.

Figure 3 is a sectional view approximately on the line 3—3 of Figure 2.

Figure 4 is a sectional view approximately on the line 4—4 of Figure 2.

Figures 5 and 6 are detail views to illustrate different manners by which the slotted pintle of the shade roller may be supported.

The window casing 1 has fixed, adjacent to the top thereof an ordinary bracket 2 that receives therein the pintle 3 which is influenced by the usual spring that is arranged in the roller 4 for a curtain shade 4'.

In the second end of the roller 4, I guide and secure against turning another and longer pintle 5. The portion of the pintle extending from the end of the roller is round in cross section and this end of the pintle 5 is journaled through a bracket. The bracket includes a flat base plate 6 which is tacked or otherwise secured to the window casing. The outer edge of the plate 6 is formed with a right angular flange 7 provided with a bearing opening for the pintle 5.

Formed on the plate 6, adjacent to the inner end thereof there is a cylindrical casing 8. The outer face of this casing is open and is closed by a removable plate 9 and through the sides of the casing 8 the pintle 5 is also enclosed.

The pintle 5 at the portion thereof received in the casing 8 is formed with a longitudinal slot 10 and through this slot there is passed one end of a tape 11. The tape is wound around the pintle in the same direction as the shade 4' is wound around the roller 4. This wound portion of the

tape is for distinction indicated by the numeral 12. The cylindrical casing 8 has a transverse opening 13 in its lower wall for the passage of the tape 11, so that the said tape is directed downwardly along one of the vertical trims of the window casing 1. The lower end of the tape has fixed thereto a pull element 14 which is preferably in the nature of a finger engaging lip.

The above construction refers to Figures 1 to 4 of the drawings. In Figure 5 the guard for the pulley 12 and the journal for the slotted pintle comprises an outer fixed angle member 15 and an inner disc 16. The disc is held from longitudinal movement on the slotted pintle 17 and the tape 18 is, of course, received through the slot of the pintle and is wound therearound and guided between the flange of the member 15 and the disc 16.

In Figure 6 the bracket 19 in which the slotted pintle is journaled is of the ordinary construction and disposed opposite the face of the bracket there is arranged and fixed on the slotted pintle 20 spaced discs 21. The end of the slotted pintle 20 is journaled in the bracket and the portion of the tape secured to and wound around the pintle is guided between the discs 21.

In lieu of the tape any other desired flexible pull element may be employed.

With my improvement it will be noted that the slotted pintle being of a materially less cross sectional diameter than that of the roller a comparatively slight pull upon the tape will cause the shade to be lowered to any desired position. By holding the tape from movement in his hand the operator will halt the turning of the roller to cause the usual spring dog at the second end of the roller to engage with the stop elements provided therefor, so that the shade can be held raised or lowered at desired positions. The operating end of the tape is at all times in convenient position to the hand of the operator or so that the same can be actuated without necessitating the operator placing his hands upon the shade, which might result in the soiling, creasing or tearing thereof. Even when the shade is fully wound around the roller the same can be readily lowered which, of course, overcomes the inconvenience of the operator standing upon an elevated support to reach the shade.

It is believed the simplicity of the construction and the advantages thereof will be understood and appreciated so that further detailed description will not be required.

Having described the invention, I claim:

An operating means for a spring wound window shade roller, in which the roller has a pintle projecting a suitable distance from the center of one of its ends, a tape having one end secured to the pintle and

wound around said pintle, said means comprising a bracket to be fixed to a window casing and having an angle flange which is round in plan and through the center of which the pintle is journaled, a second disc on the pintle and the wound portion of the tape being received between the discs so that the said discs provide a guide for the said wound portion of the tape.

In testimony whereof I affix my signature.

OLIVER WM. LEE.