P. E. LOWE & B. DE YOUNG.

WINDOW SHADE AND ROLLER.

APPLICATION FILED JULY 27, 1908.

960,228. Patented May 31, 1910.

Fig. 1.

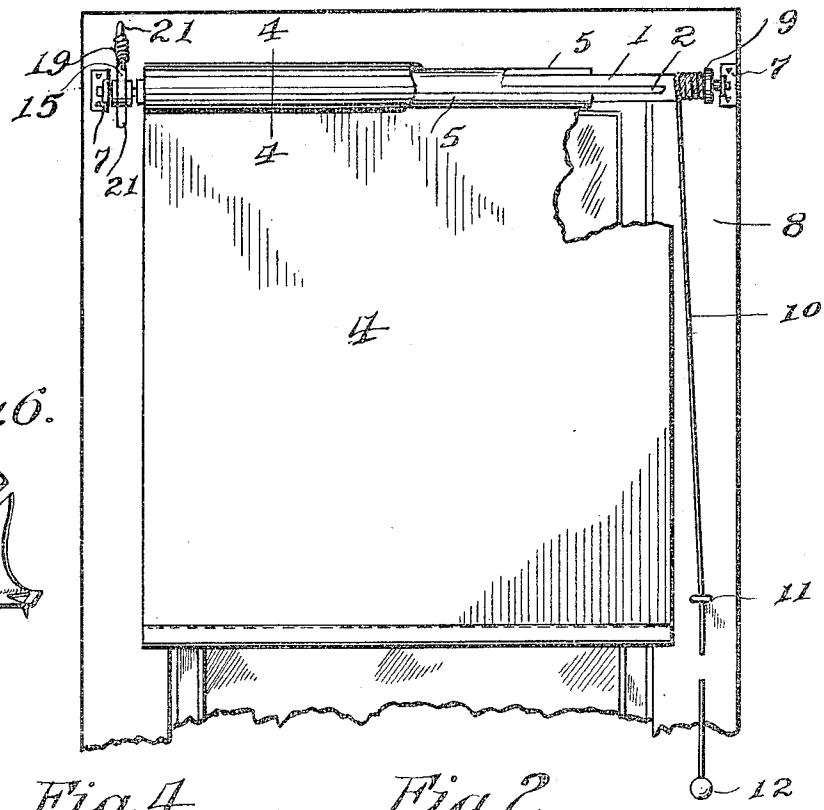


Fig. 6.

Fig. 4.

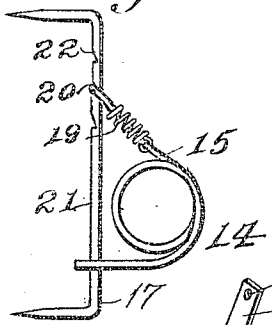


Fig. 2.

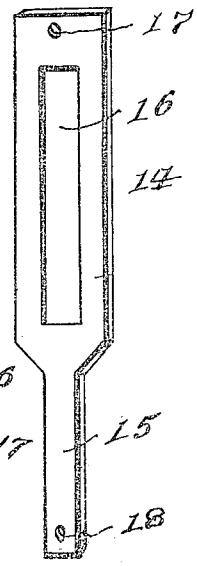


Fig. 5.

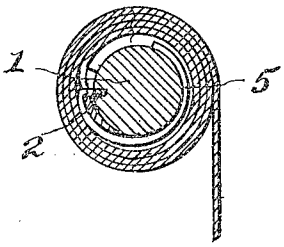
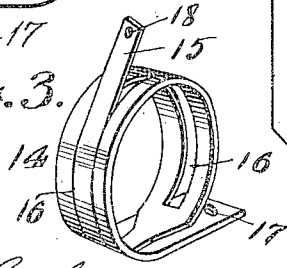


Fig. 3.



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UNITED STATES PATENT OFFICE.

PURLEY E. LOWE AND BLANCHE DE YOUNG, OF HOUSTON, TEXAS.

WINDOW-SHADE AND ROLLER.

960,228. Specification of Letters Patent. Patented May 31, 1910.

Application filed July 27, 1908. Serial No. 445,668.

To all whom it may concern:

Be it known that we, PURLEY E. LOWE and BLANCHE DE YOUNG, citizens of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Window-Shades and Rollers, of which the following is a specification.

This invention relates to window shade rollers and the object of the invention is to provide a device of this character wherein the use of springs or analogous devices for winding the curtain upon the roller is entirely dispensed with.

Another object of the invention is to provide a device of this character having means whereby the curtain is manually raised and lowered, the roller being provided with a suitable brake which is adapted to offer sufficient resistance for preventing the curtain from unwinding by its own weight.

With the above and other objects in view, which will be more apparent as the description progresses the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawings, there has been illustrated a simple and preferred embodiment of the device and in which,

Figure 1 is an elevation showing our invention in position upon a window casing, a portion of the shade being broken away to illustrate the underlying parts. Fig. 2 is a view of the brake member before it is coiled into position. Fig. 3 is a detail perspective view of the brake when coiled into operative position. Fig. 4 is a side elevation of the brake and staple. Fig. 5 is a cross sectional view upon the line 4—4 of Fig. 1. Fig. 6 is a perspective view of one of the brackets.

Referring to the drawing the numeral 1 designates a shade roller, which is provided with a longitudinally extending groove or recess 2. The groove 2 of the roller is adapted for the reception of the upper end of a curtain 4, it being understood that the said end of the curtain is cut square so that the curtain will be properly positioned in relation to the casing and so that the same will wind straight upon the roller when raised. The curtain 4 is preferably retained in proper position upon the roller 1, through the medium of a resilient clamping member 5. The clamping member 5 comprises a curved body portion adapted to tightly engage the outer face of the roller 1 and the said clamping member has one of its edges provided with a plurality of inturned substantially V-shaped fingers or prongs. These prongs are adapted to be inserted within the end of the curtain and to engage with the roller 1, thus providing a device whereby the said curtain is securely and effectively retained upon the roller. We however do not wish to limit ourselves to this especial method of attaching the curtain to the roller as other devices may be employed with equal efficiency if desired.

The roller 1 is mounted at each end in suitable brackets 7 secured to the window casing 8. These brackets 7 are preferably of a structure similar to that illustrated in Fig. 6 of the drawing having their body portion provided with eyes or slots and their offset attaching portions provided with V-shaped slits the metal of these slits being bent outwardly to form suitable prongs which are inserted within the casing 8 and thus obviate the necessity of employing screws, nails or analogous fastening devices.

The roller 1 is provided at one of its ends adjacent the vertical edge of the curtain 4 with an integrally formed depression or spool 9, upon which is wound in an opposite direction to that in which the curtain 4 is wound, an operating cord 10. This cord 10 is adapted to pass through a suitable eye 11 positioned upon the casing 8 and the said cord has its lower extremity enlarged as designated by the numeral 12. The enlargement 12 is of a greater width than the eye 11, so it will be noted that as the curtain 4 is lowered upon the casing the limit of its downward movement will be regulated by the said enlargement 12 reaching the eye 11. The curtain 4 is centrally provided with a suitable cord which is adapted to serve as a means whereby the curtain may be lowered upon the casing 8 and it will be obvious that as the curtain is unwound the operating cord 10 will be wound upon its spool 9 and also that the ball 12 reaching the eye 11 prevents the entire unwinding of the shade from the roller. It is obvious that in order to wind the shade upon the roller the cord 10 is pulled downwardly so as to rotate the roller 1 in an opposite direction and it will be observed by this arrangement the operator does not touch the shade so that the latter will be rolled perfectly straight. It

is a well known fact that in raising a curtain provided with a spring roller the operator grasps the lower edge or cord attached to the central portion of the lower edge of the curtain and that he is almost invariably likely to swing the lower portion of the shade in one direction or the other, thus causing the shade to wind up unevenly.

It is obvious that the shade would unwind by its weight if some means for holding it in position were not provided. To accomplish this we provide a strip of flexible metal 14 having at one end a tongue 15 and its body portion provided with an elongated slot 16, through which the tongue is adapted to pass. The strip is provided at one end with an eye 17 and the tongue is also provided with a similar eye 18. The strip is coiled about the roller 1 and the tongue 15 is passed through the slot 16 with its free end extending upwardly. The eye 18 provided in the end of the tongue is adapted for the reception of a light coiled spring 19 having its free end provided with a loop 20. The numeral 21 designates a substantially U-shaped staple which is employed in connection with the device. The body portion of the said staple 21 is provided with a plurality of notches 22 and the said body is also adapted for the reception of the eye 17 provided upon the strip 14. The free end of the coiled spring 19 is also adapted to be positioned upon the said staple 21 and engages with one of the notches or depressions 22 thereof.

By this construction it will be noted that the tension of the brake member 14 may be readily regulated by simply adjusting the eye 20 of the spring 19 in the various notches 22 provided by the staple. However the resistance offered by the strip or brake 14 is only slight and just sufficient to hold the roller against rotation of the shade from its own weight or in other words to prevent the shade from moving after it has been adjusted to any desired position. It will thus be seen that when the roller is rotated to wind the shade up, the coiled portion of the brake will "slack off" and permit a free action and on the other hand when the shade is grasped and pulled down the brake will not offer sufficient resistance to interfere with the unwinding of the shade.

From the above description, taken in connection with the accompanying drawing the advantages of construction and method of operation will be apparent to those skilled in the art to which the invention appertains and while we have described the principles of operation together with the apparatus we now consider to be the best embodiment thereof, we desire to have it understood that the device shown is merely illustrative and that such changes in degree and proportion falling within the scope of the appended claims may be resorted to if desired.

Having thus fully described the invention what is claimed as new is:

1. In a window shade, a roller adapted to receive the shade, a flexible connection having engagement with the roller for revolving the same, a friction brake comprising a flexible strip coiled around one end of the roller and having one end held in position and a coiled spring attached to the opposite end of the strip, and means for varying the tension of said spring.

2. In a window shade, a roller adapted to receive a shade, a flexible connection having engagement with the roller for revolving the same and a friction brake comprising a flexible strip coiled about one end of the roller and having one end held in position and a coiled spring attached to the opposite end of the strip, and means for adjusting the tension of the said spring so as to vary the tension of the flexible strip.

3. In a window shade, a roller adapted to receive the shade, a flexible connection having engagement with the roller for revolving the same, a staple having a series of notches, a friction brake comprising a flexible strip coiled around one end of the roller and having one of its ends held in position by the staple and a coiled spring attached to the opposite end of the strip, the free end of the spring being hooked and adapted to engage any one of the said notches of the staple.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

PURLEY E. LOWE.
BLANCHE DE YOUNG.

Witnesses:
WM. A. CATHEY,
F. J. LEESON.