No. 822,031. PATENTED MAY 29, 1906.

C. L. WEBSTER.

ROLL DROP WINDOW SHADE.

APPLICATION FILED JUNE 7, 1905.

Fig. 1.

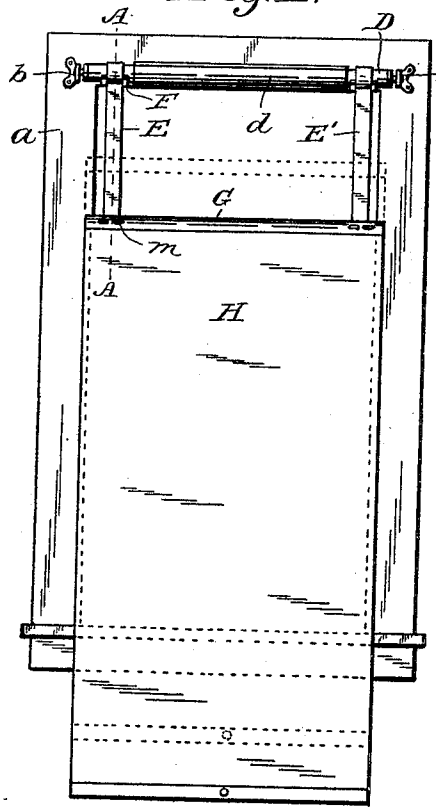


Fig. 2.

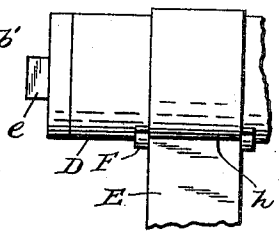


Fig. 3.

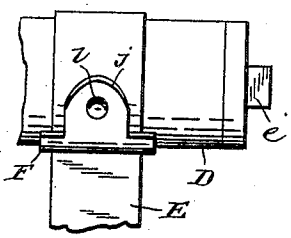


Fig. 4.

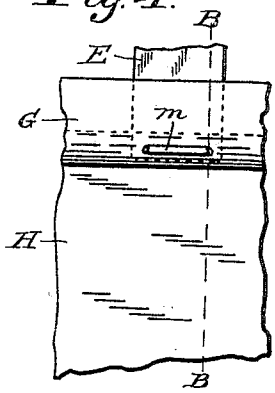


Fig. 5.

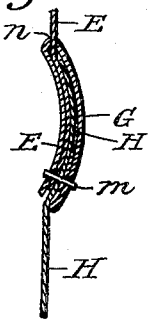


Fig. 6.

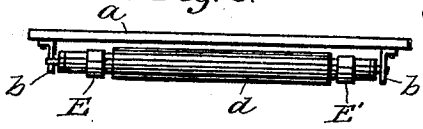


Fig. 8.

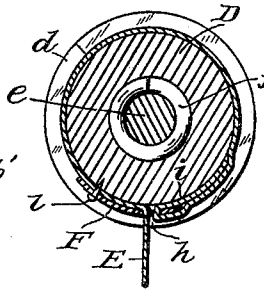


Fig. 9.

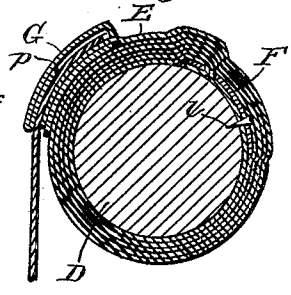


Fig. 7.

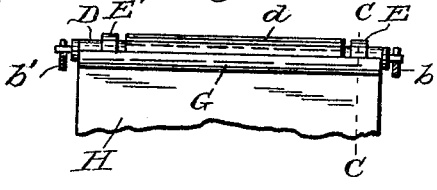


Fig. 12.

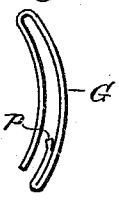


Fig. 10.

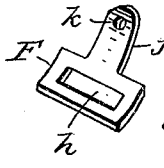


Fig. 11.

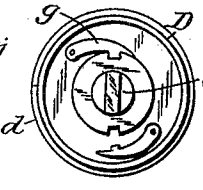
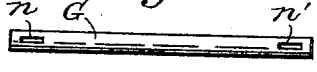


Fig. 13.



Witnesses:

Ross W. Vorhies.

Stella Snider.

Inventor:

Cheever L. Webster.

by

C. T. Silvius.

Attorney.

UNITED STATES PATENT OFFICE.

CHEEVER L. WEBSTER, OF GALION, OHIO.

ROLL-DROP WINDOW-SHADE.

No. 822,031. Specification of Letters Patent. Patented May 29, 1906.

Application filed June 7, 1905. Serial No. 264,043.

To all whom it may concern:

Be it known that I, CHEEVER L. WEBSTER, a citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented new and useful Improvements in Roll-Drop Window-Shades; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the class of rolling window-shades that are designed to be hung to the window-casings at the inner sides of the windows, the invention having reference particularly to the hanging devices of the shades, especially the rollers therefor, and to suspenders for connecting the shades to the rollers.

The object of the invention is to provide rolling window-shades that may be lowered at their tops for freely ventilating apartments or for other purposes, such as for admitting light at the tops while darkening the remaining portions of the windows, a further object being to provide window-shades of the above-mentioned improved type that may be cheaply constructed and be suitable for embracing as parts thereof such spring-rollers as are commonly found in the market, the whole to be efficient and durable in use.

With the above-mentioned and other objects in view the invention consists in window-shades provided at the tops thereof with suspenders attached to rollers for drawing the curtains onto the rollers and releasing them therefrom; and the invention consists, further, in the novel parts and in the combinations and arrangements of parts, as hereinafter particularly described and claimed.

Referring to the drawings, Figure 1 represents an elevation of a window with which the improved shade is connected; Figs. 2 and 3, fragmentary views of the roller, showing the shade-suspenders attached thereto; Fig. 4, a fragmentary view of the shade and a suspender thereof viewed from the outside of the window; Fig. 5, a vertical transverse sectional view on the line B B in Fig. 4; Fig. 6, a top plan of the roller and connections on the window-casing; Fig. 7, a fragmentary elevation viewed from the outside of the window, showing the shade drawn up to the roller; Fig. 8, a fragmentary transverse sectional view on the line A A in Fig. 1; Fig. 9, a transverse sectional view on the line C C in Fig. 7; Fig. 10, a perspective view of a clasp for fastening a suspender to the roller; Fig. 11, an end view of the roller; Fig. 12 an end view of the suspender-bar for spreading and directly supporting the shade, and Fig. 13 a top plan of the suspender-bar.

Similar reference characters in the drawings designate like parts or elements.

In the drawings, *a* designates the window-casing, to which the roller-brackets *b* and *b'* are attached for supporting the spring-roller D, which is somewhat similar to those commonly used for supporting window-shades, but preferably having the main portion *d* thereof thicker than the end portions, this being attained in some cases by attaching a thick strawboard cover to an ordinary straight roller that has a spindle *e*, surrounded by a spring *f*, in an end thereof, the end of the roller having pawls *g* for engagement with a notched collar on the spindle, which construction will be understood.

A pair of flexible suspenders E and E', preferably composed of fabric, as tape, are attached to the end portions of the roller D, each suspender being attached by means of a clasp F, that has a slot *h* therein, through which an end *i* of the suspender is passed and turned under against the roller, the suspender extending therefrom about the roller and again through the slot to the suspender-bar, the clasp having a tongue *j*, having a hole *k* therein, through which a tack *l* is driven into the roller, passing through the suspender that extends between the tongue and the roller. It will thus be seen that the clasp connects the suspender together and to the roller, the tack merely preventing the slipping thereof.

The suspender-bar G is attached to the suspenders E and E' and also to the shade H by means of staple-like fasteners *m*, extending through suitable apertures in the bar and clenched over, the bar G being composed of a strip of metal doubled over so as to have a front and a back covering the top of the shade and assisting in holding the shade in the bar, the shade being inserted into the bar before applying the fasteners. The bar is concavo-convex in cross-section, so as to lie closely to the roller, and has slots *n* and *n'* in the folded or bent part, which is the top thereof, to admit the free ends of the suspenders E and E', which extend to and are held in the bar by the fasteners *m*. The lower edge of the outer part of the bar G, that is convex exteriorly,

is turned under between the two parts of the bar and has its extremity bent toward the opposite part, forming a lip *p* to press against the shade for assisting in holding the shade in the bar.

It will be understood that when the suspenders are rolled onto the roller D they will fill the smaller ends of the roller, so as to cover it to the same thickness as the part *d* of the roller, thus providing a practically straight roller to hold the shade smoothly thereon. The roller, however, may be straight or of uniform diameter throughout in some cases, particularly if three or more suspenders be used.

In practical use the roller will operate in a well-known manner, rolling the suspenders thereon and then the shade, and the latter may be drawn down a suitable distance, as to the dotted lines in Fig. 1.

Having thus described the invention, what is claimed as new is—

1. A window attachment including a spring-roller, a window-shade provided at an end thereof with a suspender-bar formed of a plate turned over the end of the shade and having apertures therein, and a plurality of narrow suspenders attached to the spring-roller and extending through the apertures of the suspender-bar and secured to the shade and to the suspender-bar.

2. A window-shade provided at an end thereof with a suspender-bar formed of a plate turned over to form two walls and having one edge turned under between the two walls and forming a gripping edge engaging the shade, staples securing the two walls of the suspender-bar to the shade, a plurality of suspenders secured to the suspender-bar, and a spring-roller attached to the plurality of suspenders.

3. A window-shade provided at an end thereof with a suspender-bar that is concavo-convex in cross-section and having apertures therein, devices securing the suspender-bar to the shade, a plurality of suspenders extending through the apertures of the suspender-bar and secured to the shade and to the suspender-bar, and a spring-roller attached to the plurality of suspenders.

4. A window-shade provided at an end thereof with a suspender-bar formed of a plate turned over to form two opposing walls, the inner face of one wall being concave and the inner face of the other wall being convex, devices securing the shade between the two walls of the suspender-bar, a plurality of suspenders connected to the suspender-bar and to the shade, a spring-roller attached to the plurality of suspenders, and clasps attached to the spring-roller and also each to a suspender.

In testimony whereof I affix my signature in presence of two witnesses.

CHEEVER L. WEBSTER.

Witnesses:
P. A. FRANKS,
H. R. SCHULER.