No. 848,175. PATENTED MAR. 26, 1907.

G. E. JOHNSTON.

WINDOW SHADE FASTENER.

APPLICATION FILED APR. 12, 1906.

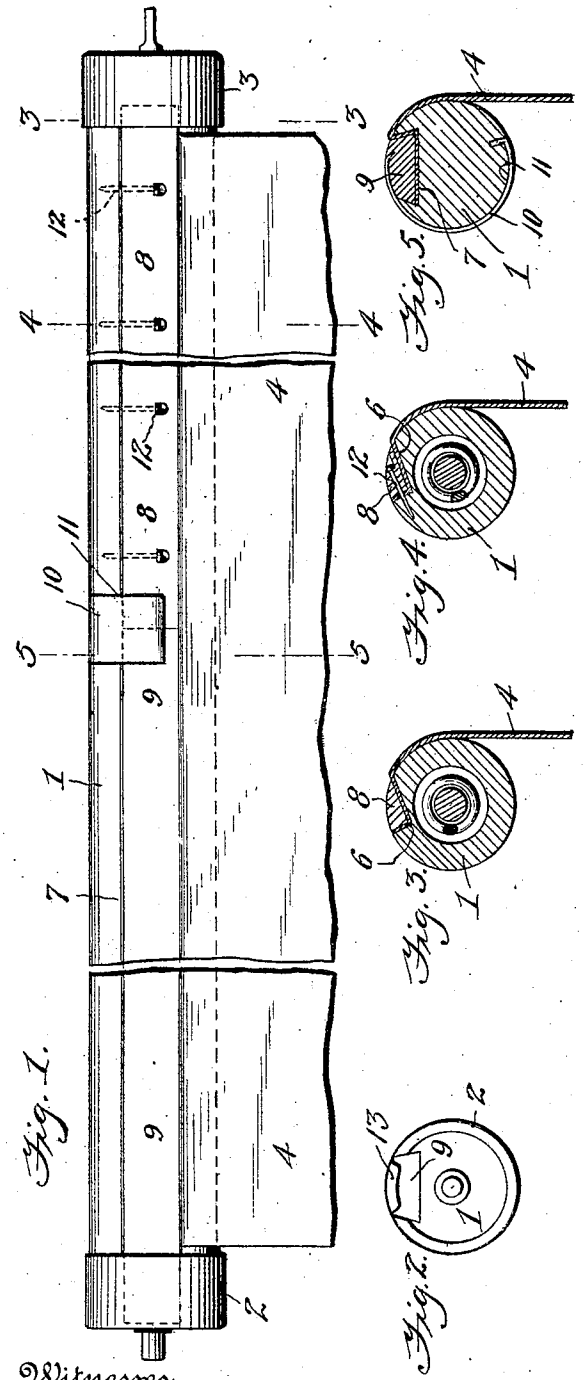

Fig. 1.



Fig. 5.



Fig. 4.



Fig. 3.



Fig. 2.

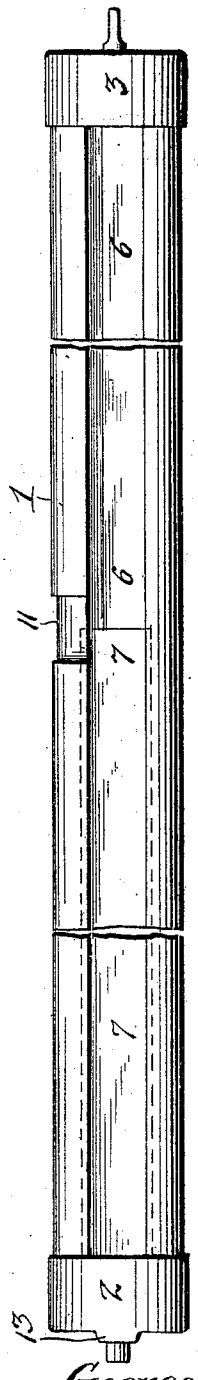

Fig. 6.

Fig. 7.

Witnesses.
J. C. Griesbauer Jr.
C. W. Griesbauer.

Inventor
George E. Johnston
by A. B. Wilson & Co.
Attorneys

# UNITED STATES PATENT OFFICE.

GEORGE E. JOHNSTON, OF DENVER, COLORADO.

## WINDOW-SHADE FASTENER.

No. 848,175. Specification of Letters Patent. Patented March 26, 1907.

Application filed April 12, 1906. Serial No. 311,389.

*To all whom it may concern:*

Be it known that I, GEORGE E. JOHNSTON, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Window-Shade Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in window-shade rollers, and more particularly to means for fastening the shades thereto.

The object of the invention is to provide a simple inexpensive means for quickly and effectively attaching the inner or upper edge of a window-shade to the roller upon which it is wound.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of my improved window-shade roller. Fig. 2 is an end view of the same. Figs. 3, 4, and 5 are transverse sectional views taken, respectively, on the planes indicated by the lines 3 3, 4 4, and 5 5 in Fig. 1. Fig. 6 is a view of the roller with the shade and its attaching devices removed therefrom, and Fig. 7 is a perspective view of the under face of the outermost or dovetailed retaining-strip.

Referring to the drawings by numeral, 1 denotes a cylindrical window-shade roller having at its ends the usual metal caps or ferrules 2 3 and in one of its ends a cavity to receive the usual coil-spring, which actuates the roller. Extending longitudinally upon the outer face of the roller is a channel or groove in which the inner end of the shade 4 is retained by my improved fastening means. The portion 6 of this groove, which extends along the hollow or recessed end of the roller, is comparatively shallow and of V form in cross-section, as shown in Fig. 4 of the drawings, while the remaining portion 7 of said groove, which portion extends along the solid part of the roller, is of dovetail form in cross-section, as shown in Fig. 5. The shade is fastened in said grooves by two retaining-strips 8 9, the former of which is shaped to fit the groove 6 and the latter of which is shaped to fit the groove 7. The strip 8 has its outer end tapered slightly to fit under the ferrule 3 upon the end of the roller, and the inner or abutting ends of both of said strips are retained in position by a spring band or clip 10 of substantially semicircular form, which is seated in a groove 11 in the roller and has one of its ends bent inwardly and engaged with a recess at one end of said groove and its other end beveled to bite into the abutting ends of said strips, as clearly shown in Fig. 5 of the drawings. The strip 8 may also be retained in its groove or channel 6 by one or more brads or small nails 12, which are driven through it and into the roller, as clearly shown in Fig. 4.

The undercut walls of the groove 7 will, owing to their engagement with the beveled edges of the strip 9, retain the latter therein, and endwise movement of said strip 9 is prevented after it has been pushed into position beneath the band or ferrule 2 by bending a portion 13 of the surrounding flange of said ferrule downwardly, as clearly shown in Fig. 2.

If desired, the groove 7 and the strip 9 may be tapered longitudinally to a slight extent from their outer to their inner ends, so as to facilitate the insertion of said strip.

The construction, use, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that by making the groove 6, as shown, in that portion of the roller which is weakened by the formation of the spring cavity or socket the roller will not be materially weakened at that point and the shade will be effectively retained upon the roller. The construction and arrangement of the strips also permits them to be applied to and removed from the roller to cause them to effectively retain the shade in position.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with a roller having a longitudinal groove in one side, extending from end to end thereof, a shade-retaining strip in said groove, beveled on its outer side at one end, bands or ferrules on the ends of the

roller, one engaged by the beveled end of the strip and the other also engaging said strip and having a flanged portion bearing on the end of the strip and preventing casual endwise movement thereof, and a clip secured to and partly encircling and bearing on the roller and strip, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE E. JOHNSTON.

Witnesses:
MORRIS WOEFE,
BERTRAM MCDONALD.