

(No Model.)

E. F. HARTSHORN.
SHADE ATTACHING DEVICE.

No. 564,573.

Patented July 21, 1896.

Fig. 1

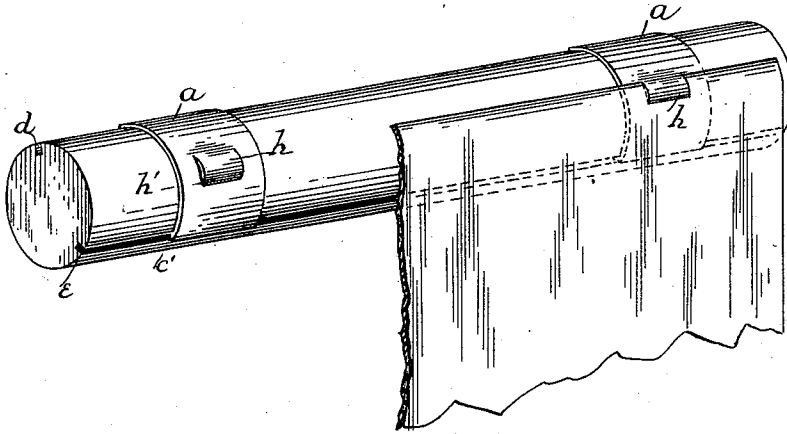


Fig. 2

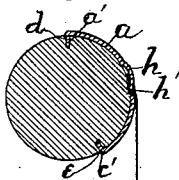


Fig. 3

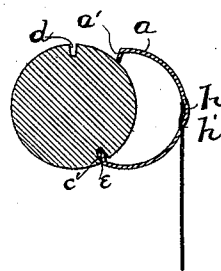


Fig. 4

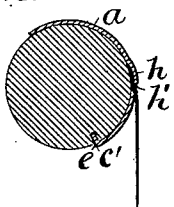
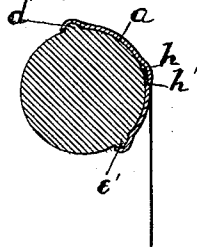


Fig. 5



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND F. HARTSHORN, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE
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SHADE-ATTACHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 564,573, dated July 21, 1896.

Application filed September 26, 1895. Serial No. 563,712. (No model.)

To all whom it may concern:

Be it known that I, EDMUND F. HARTSHORN, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Attaching Window-Shades to Rollers, of which the following is a specification.

My improvement refers to that class of shade-attaching devices in the form of spring-clasps which are sprung over the roller; and it consists of a novel construction of the clasp, whereby the shade is more securely grasped and attached to the roller.

In the accompanying drawings, Figure 1 is a side view of a roller with the shade attached by my improved clasp. Fig. 2 is an end section of the roller and the clasp with the shade grasped by the latter. Fig. 3 is a sectional view of the roller, showing the method of attaching the shade. Figs. 4 and 5 are modified forms.

The drawings show a wooden roller, but the clasp can be used equally well with any metal roller having a longitudinal groove along its circumference.

As will be seen from the drawings, the clasp *a* consists of a curved band of metal of a length to encircle the roller *R* for about half its circumference in the usual manner. In order that the clasp shall grasp the roller tightly, its diameter is made less than that of the roller, as shown in Fig. 3, and hence when sprung over the roller it is necessary to open out or spring apart the ends of the clasp. At or near the middle of the clasp is a tongue *h*, formed from the metal of the clasp by cutting through the latter on three sides and leaving what may be termed the upper or fourth side intact. When the ends of the roller are spread apart or opened, as is the case when the holder is in place on the roller, the free end *h'* of this tongue is thrown inward and pressed against the side of the roller, as shown in Fig. 5. To increase the action of the tongue and insure its free end pressing more firmly against the roller, the tongue may be tempered to a greater degree than the remainder of the clasp.

In the surface of the roller are radial longitudinal grooves *d e*, or, as in the modification shown in Fig. 4, a single groove *e*. When two grooves are used, they are placed at a distance from each other a little greater than the length of the holder when detached. The two opposite ends *a'* and *c'* of the clasp are bent at an acute angle with the surface and arranged to enter the grooves in the roller.

In attaching the shade one of the bent ends *a'* or *c'* of the clasp is inserted in the corresponding groove *d* or *e*, and the edge of the shade is placed on the outer surface of the lower part of the clasp and under the tongue *h*, as shown in Fig. 3. The clasp is then sprung around the roller until the opposite bent end slips into the other groove *d* or *e*, as in Fig. 2. As before set forth, by reason of the ends of the clasp being spread out in springing over the roller, the free end *h'* of the tongue is pressed in against the roller and securely grasps and holds the shade.

The grasp of the tongue on the shade prevents the latter from being pulled out from the clasp, and thus detached from the roller by any pull in any direction of the shade, and the engagement of the bent edge *c'* with the groove holds the clasp in place on the roller and prevents it being turned around on, or pulled off from, the latter by the direct pull of the shade on the clasp when the shade is entirely unwound.

In the modification shown in Fig. 4 only one end *c'* of the clasp is bent and fits in a groove in the roller, and the clasp is made longer than in the construction shown in Figs. 2 and 3.

In place of the grooves in the roller ridges or corrugations *d' e'* may be formed along the outside of the surface of the roller, as shown in the modified construction in Fig. 7. With the roller thus made, the ends of the clasp are formed, as shown in the figure, to fit over these ridges or corrugations. It is evident that the operation of the holder will be the same in this last-mentioned construction with the ridges on the roller as with the grooves, and the holder be equally effective in securing the shade.

I claim—

As a new article a spring-clasp for attaching window-shades to rollers, consisting of the clasp *a* formed of a single piece and
5 sprung over the roller, and having the spring-tongue *h* integral therewith, adapted to press the shade against the roller and grasp the

same as the clasp is sprung over the roller, and the turned-in edge *c'*, substantially as described.

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Witnesses:

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