

(No Model.)

S. HARTSHORN.
ATTACHING WINDOW SHADES TO ROLLERS.

No. 444,832.

Patented Jan. 20, 1891.

Fig. 1.

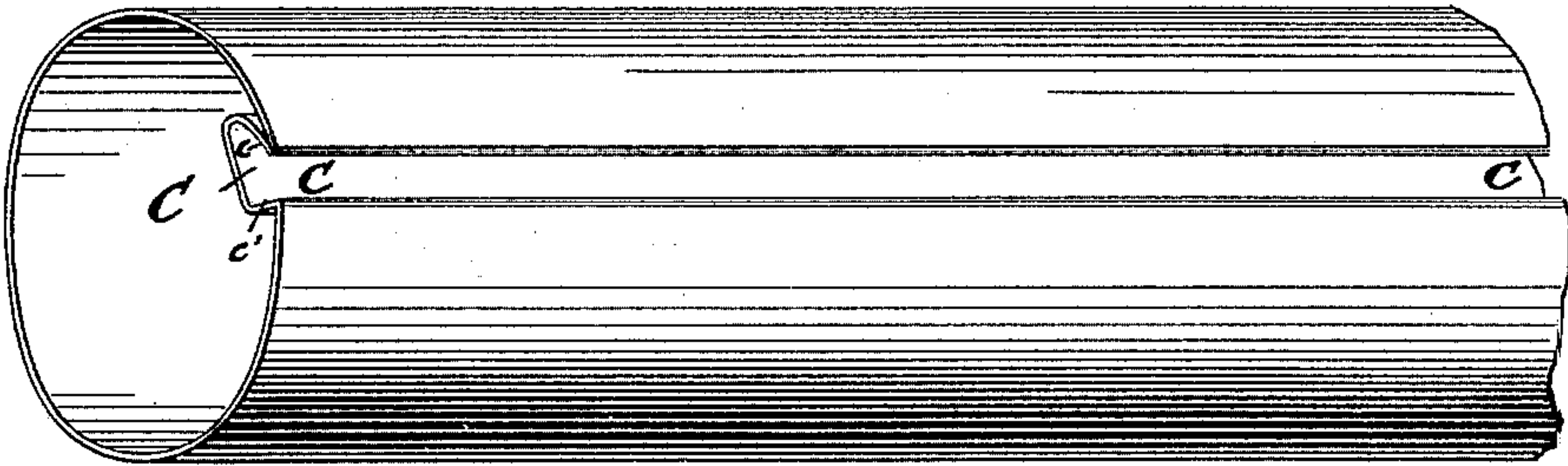


Fig. 2.

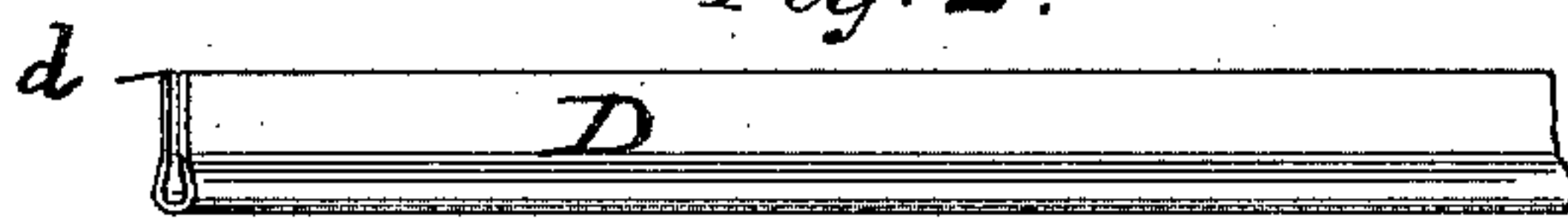


Fig. 3.

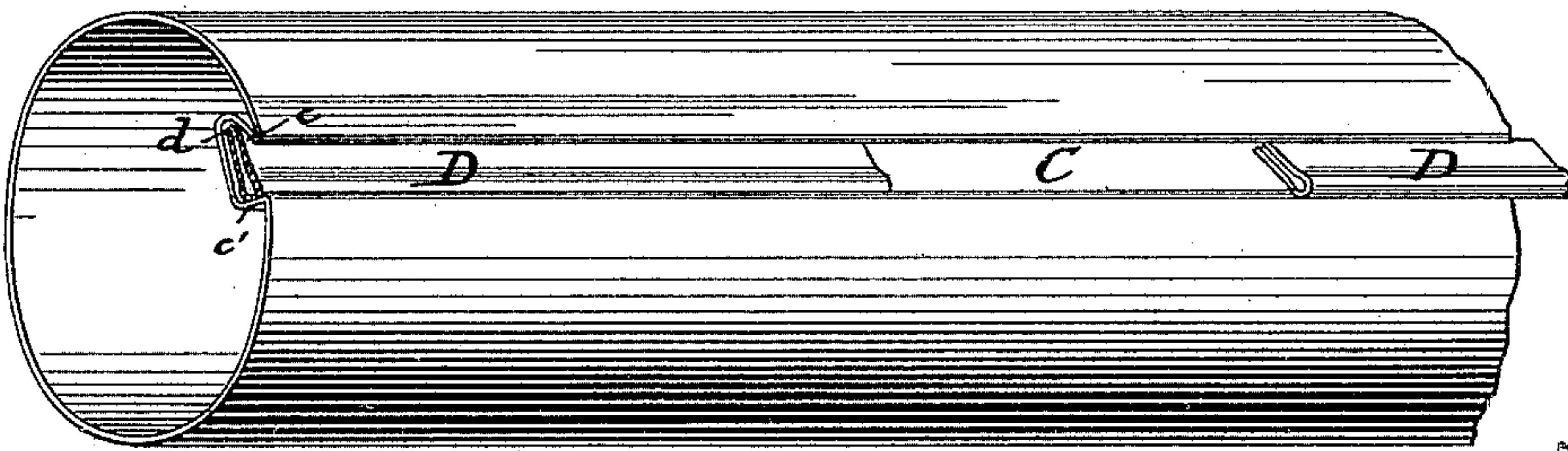
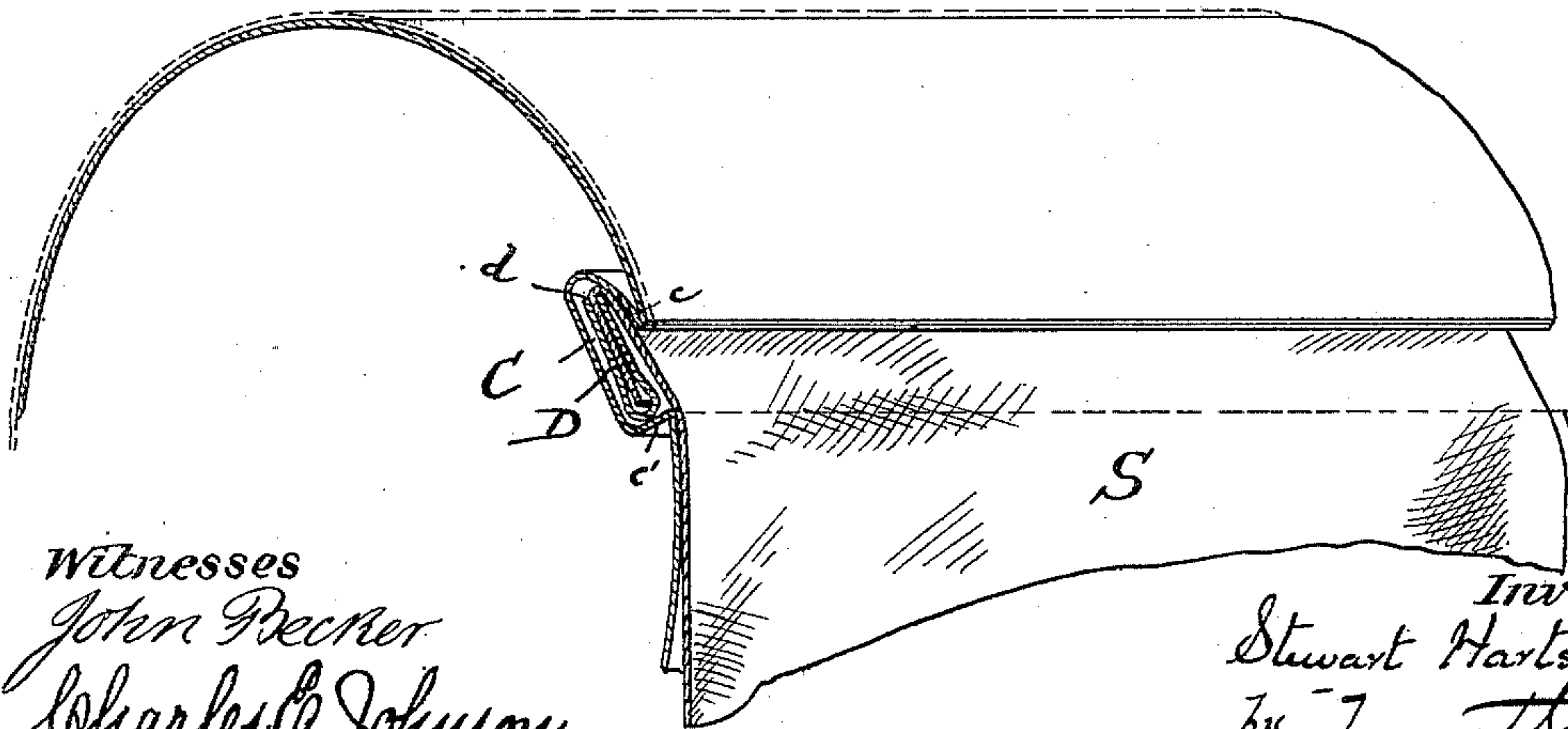


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

STEWART HARTSHORN, OF SHORT HILLS, NEW JERSEY.

ATTACHING WINDOW-SHADES TO ROLLERS.

SPECIFICATION forming part of Letters Patent No. 444,832, dated January 20, 1891.

Application filed September 14, 1889. Serial No. 323,937. (No model.)

To all whom it may concern:

Be it known that I, STEWART HARTSHORN, a citizen of the United States, and a resident of Short Hills, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Attaching Window-Shades to Rollers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention refers to an improvement in the means of attaching window-shades to the rollers on which they are hung, and is designed to produce an attachment by which the shade can be readily and quickly secured to the roller without previous preparation, and can be easily removed from the same when desired.

In the drawings illustrating my invention, in which like letters indicate like parts, Figure 1 is a side view of a roller, showing the groove or recess in which the shade is held. Fig. 2 is a view of the folded bar or metallic strip by which the shade is confined in the groove. Fig. 3 is a view of the roller showing the bar or strip in the groove. Fig. 4 is a view of the roller, with the shade held in the groove by the bar.

My improvement relates to that class of window-shade attachments in which the shade is held in a longitudinal groove or recess formed in the side of the roller.

My improvement consists, essentially, in placing the bar or fastening device and the shade into the groove from the side or face of the roller and holding or confining them therein solely by the shape of the groove, and the engagement of the bar with the latter, without other fastening, said bar being provided with a recess to receive the end of the shade to protect the same and prevent it from slipping between the bar and the groove in which the bar lies and from being abraded by the movement of the bar, by which I avoid the annoyance and difficulty of drawing the shade through the groove, or the necessity of fastening the shade in the latter by outside means.

In the form of my improvement shown in the drawings, which I deem preferable, the fastening-bar by which the shade is held in the groove consists of a flat folded strip of

metal D, open along one edge *d*, as is shown in Fig. 2, into which the edge of the shade is inserted. This bar or strip D is of a width to fit loosely in the groove in the side of the roller, and may be of a length corresponding to the length of the roller, or may be much shorter than the roller, in which case several bars are used.

The groove C, formed in the side of the roller, is flattened to correspond with the shape of the bar D, and has one wall extending or projecting over the bottom of the groove, as shown at *c*, Fig. 1, leaving a large opening into the groove, while the other or opposite wall is slightly inclined inwardly to the bottom of the groove, as shown at *c'*.

The bar is placed in the groove in the following manner: The open edge *d* of the bar is inserted first in the groove under the projecting edge or top *c*, as shown in Fig. 3, when the whole bar is pushed into the groove, the folded side *d'* of the bar resting against the inclined side *c'* of the groove, as will be seen in Figs. 3 and 4. The bar is now securely held in the groove with the side *d* under and next to the projecting edge *c* of the groove.

The method of fastening the shade by my improved attachment will be fully understood by reference to Fig. 4 of the drawings. The top edge of the shade is first inserted between the sides of the folded bar D, so as to be held therein, and the bar, together with the shade, is then placed in the groove C, as before described, by inserting the edge *d* and the shade into the groove under the projecting edge *c*, and then pushing the whole bar into the groove, as is shown in Fig. 4. The bar and shade are now securely held in the groove, and, as will be evident from Fig. 4, as the shade is pulled the top of the side *d* of the bar is pressed against the projecting edge or top *c* of the groove, and hence the shade is clamped or held between the edge of the bar and the under side of the projecting top *c* of the groove, and is thus firmly fastened, and the greater the strain or pull on the shade the tighter the latter is held between the bar and groove, and the more securely it is fastened to the roller. The bar and shade are thus securely held or confined in the groove by the conformation of the groove itself without other or separate fastening, and the shade at-

tached to the roller by the engagement of the bar and groove. I thus avoid the difficulty of drawing the shade through the groove from one end of the latter and of fastening the bar
5 into the groove by separate and outside devices; and, moreover, the greater the strain on the shade the more securely the latter is held in the groove, and it is impossible to draw the shade out from under the bar. Furthermore, with my folder-bar the bar or strip
10 forms a protecting edge for the shade, and materially assists in attaching the shade to the roller so it will be straight and will wind up evenly.

15 As will be understood from the drawings, it does not matter which way the shade is wound on the roller, as it will be evident that in whichever way the shade is pulled it will cause the bar to press the edge *d* against the
20 groove, the strain of the shade being always in the same direction on the bar.

The shape of the bar D may be varied slightly from that shown in the drawings, and instead of being made by folding a strip of

metal the bar may be made from a solid strip 25 and formed with the recess to receive the shade.

What I claim is—

1. In a fastening for attaching shades to rollers, the combination, with a curtain-roller 30 having a groove C, of a bar D, formed with a recess to receive the shade, said bar being adapted to be inserted in the groove C from the face of the roller, substantially as and for the purposes set forth.

2. In a fastening for attaching shades to rollers, the combination, with a curtain-roller 35 having a groove C, of the folded bar D, adapted to receive the shade and to be inserted in the groove C from the face of the roller, substantially as and for the purposes set forth. 40

Signed at New York, in the county of New York and State of New York, this 28th day of November, A. D. 1888.

STEWART HARTSHORN.

Witnesses:

GEORGE E. CROSCUP,
MARY R. COBB.