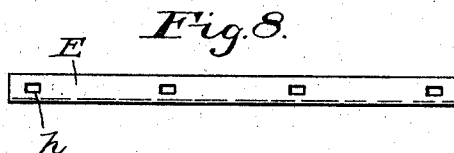
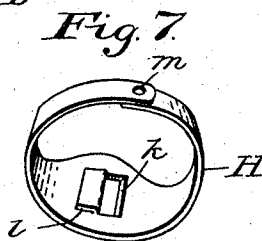
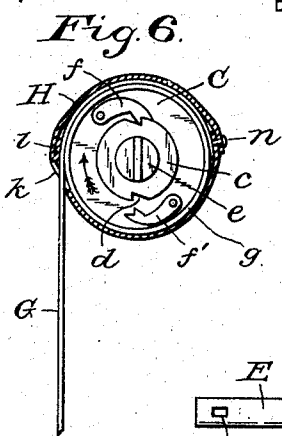
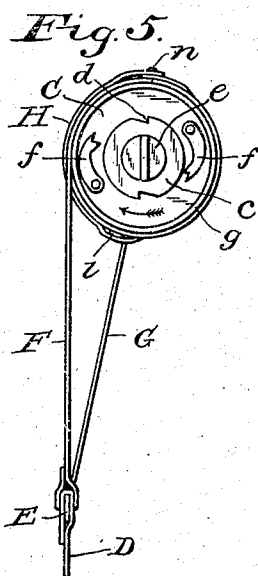
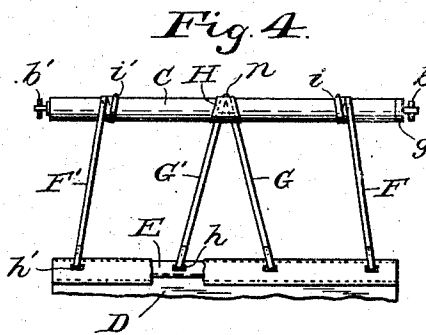
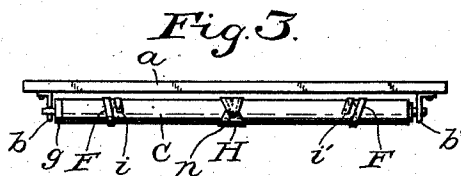
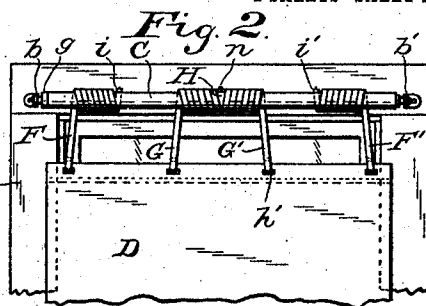
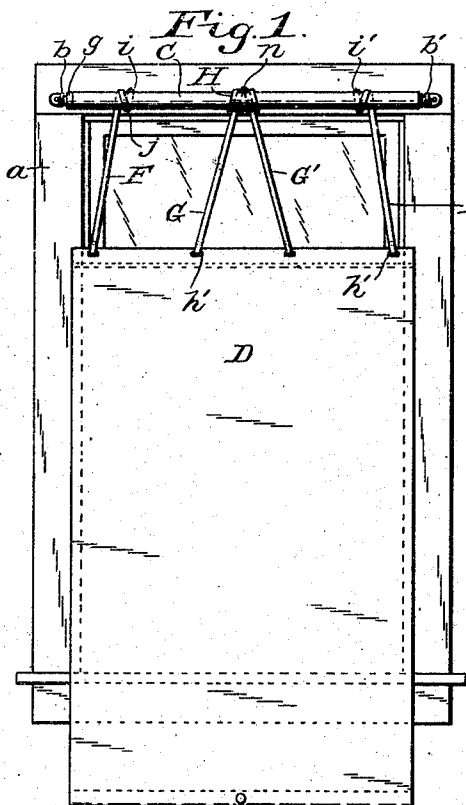


C. L. WEBSTER.
ROLLING WINDOW SHADE CONNECTION.

APPLICATION FILED NOV. 29, 1905.

2 SHEETS—SHEET 1.



Witnesses:
Wm. H. Payne.
Stella Snider.

Inventor:
Cheever L. Webster,
by
C. T. Silvius,
Attorney.

No. 846,709.

PATENTED MAR. 12, 1907.

C. L. WEBSTER.
ROLLING WINDOW SHADE CONNECTION.

APPLICATION FILED NOV. 29, 1905.

2 SHEETS—SHEET 2.

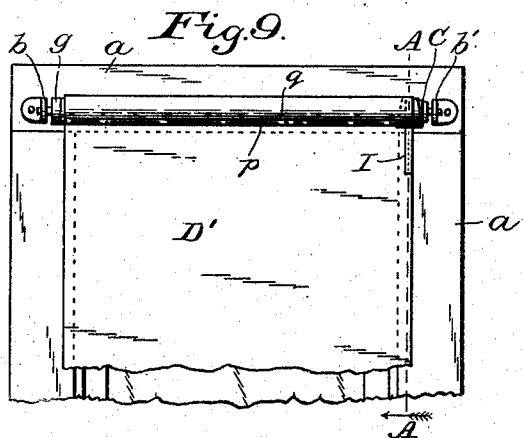


Fig. 10.

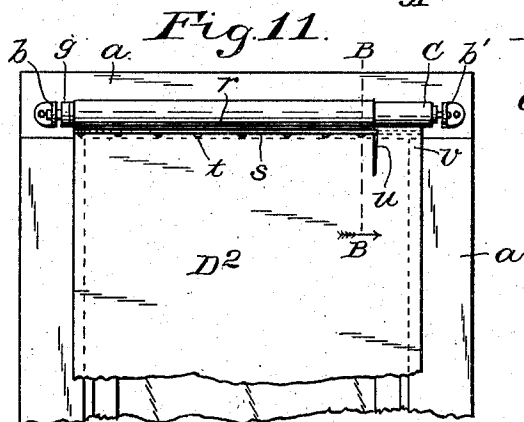
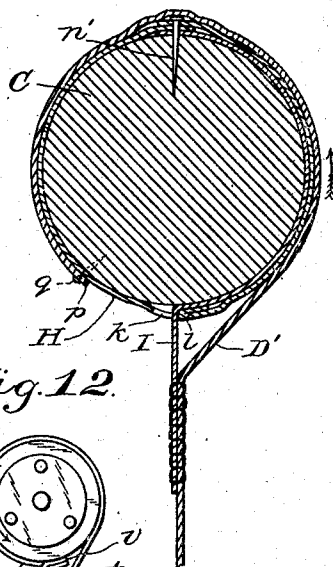


Fig. 12.

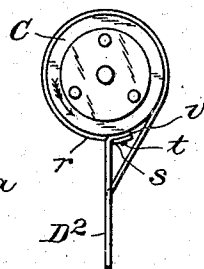


Fig. 13.

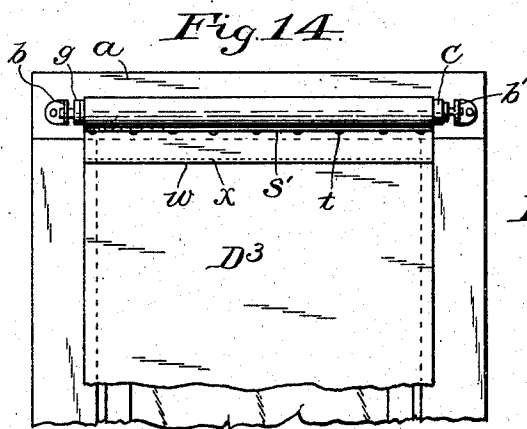
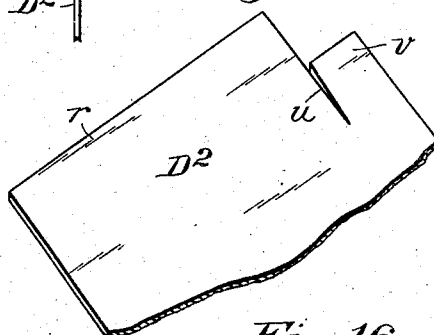


Fig. 15.

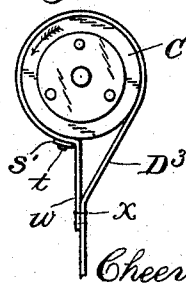
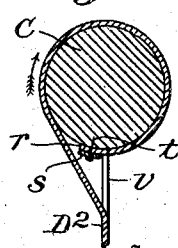


Fig. 16.



Witnesses:

Wm H Payne.
Stella Snider.

Cheever L. Webster,
by

E. T. Silvius.
Attorney.

UNITED STATES PATENT OFFICE.

CHEEVER L. WEBSTER, OF GALION, OHIO, ASSIGNOR OF ONE-HALF TO
THOMAS L. BROWN AND ONE-HALF TO ROSA M. WEBSTER, BOTH
OF GALION, OHIO.

ROLLING WINDOW-SHADE CONNECTION.

No. 846,709.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed November 29, 1905. Serial No. 289,568.

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 Rolling Window-Shade Connections; 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to the class of window-shades that are hung on spring-rollers, the invention having particular reference to the connections of the shades with the rollers.

Objects of the invention are to provide means whereby window-shades may be so connected to their rollers that the shades may be unrolled safely without being torn from the rollers or dead-locked in unrolled position, whether attached directly to the rollers or hung thereto by means of suspenders, and to provide safety connections of the above-mentioned character that may be applied to the solid parts of the rollers beyond the parts that contain the springs, where only the smallest tacks may be driven into the rollers without affording sufficiently strong connections for the shades. Other objects are to provide cheap, durable, and economical shade connections.

With the above-mentioned and minor objects in view the invention consists in a rolling shade having a roller-check device; and it consists also in the construction, arrangement, and combinations of elements concerning window-shade attachments as hereinafter particularly described, and pointed out in the appended claims.

Referring to the drawings, Figure 1 represents a front elevation of a window viewed from the inside thereof and having a window-shade and roller connected together in accordance with the invention, the shade being connected to the roller by means of suspenders; Fig. 2, a fragmentary view similar to Fig. 1, except that the suspenders are rolled partially onto the roller; Fig. 3, a top plan of Fig. 1; Fig. 4, a fragmentary elevation of the roller and the shade and connections viewed from the outside, the roller-brackets being in section; Fig. 5, an end ele-

vation of the roller and fragmentary side elevation of the shade and connections; Fig. 6, an end elevation of the roller and fragmentary side view of one of the check devices, a suspender being omitted to avoid obscuring other features, the clasp for the check device being shown in central section; Fig. 7, a perspective view of the clasp; Fig. 8, a front view of the suspender-bar of the shade; Fig. 9, a fragmentary inside elevation of a window and a shade connected directly to its roller and provided with the check device in a modified form; Fig. 10, a fragmentary transverse sectional view on the line A A in Fig. 9; Fig. 11, a fragmentary inside elevation of a window and a shade connected directly to its roller and provided with a check device in another modified form; Fig. 12, an end view of the roller and fragmentary side view of the shade shown in Fig. 11; Fig. 13, a fragmentary perspective view of the shade shown in Figs. 11 and 12 detached from the roller; Fig. 14, a fragmentary inside elevation of a window and a shade connected directly to its roller and provided with a check device of still another modified form; Fig. 15, an end view of the roller and fragmentary side view of the shade shown in Fig. 14, and Fig. 16 a fragmentary transverse sectional view on the line B B in Fig. 11.

Similar reference characters in the different figures of the drawings designate corresponding elements or features.

In practically carrying out the invention the check device, which is for the purpose of preventing the shade or the suspenders thereof when employed from being torn from the roller and to prevent dead-locking of the roller with the shade unrolled, is variously formed and applied, all modifications being according to one principle of arrangement and operation.

In the drawings, *a* designates a window-casing; *b* and *b'*, the brackets for the shade-roller; *c*, the collar having notches *d* to receive dogs for latching the roller; *e*, the stationary axle or spindle to which the collar is attached; *C*, the spring-roller for the shade, and *f f'* the dogs pivoted on the roller, all of well-known or suitable construction and arrangement, the roller having a collar *g* on its end that runs on the stationary axle, and it will be understood that the bore in the roller

to receive the spring and axle is of such relative diameter that the wall of the roller is too thin to permit of any other than relatively small tacks to be driven into it, such tacks
 5 being liable to be pulled out by the shade when completely unrolled in case the shade be sufficiently strong, and when not of considerable strength the shade itself may be torn, either of which is avoided by the use of
 10 the check device.

The shade D, when designed to drop from the roller, as in Figs. 1, 2, 4, and 5, is connected to the roller C by means of a suspender-bar E, attached to the top of the
 15 shade and having a suitable number of apertures *h* therein, and a pair of suspenders F and F', that are attached to the suspender-bar, extending through the apertures *h* and also through apertures *h'*, that are cut in the
 20 shade near the sides thereof. The suspenders extend obliquely to the roller C and have their ends *i* and *i'* respectively attached to the roller by tacks, each suspender-end extending entirely about the roller, so as
 25 to have a lap *j* when the roller is checked, so that it cannot further unroll the suspenders. The check devices comprise two tapes G and G', that prevent the roller from unrolling the suspenders entirely therefrom, and the tapes
 30 serve also as suspenders for the shade, being attached to the suspender-bar at two of the apertures *h* between the two suspenders F and F' and extending convergently to the roller C, to which they are attached by means
 35 of a clasp H, that has an aperture *k* in its middle portion and also a lip *l* at one side of the aperture turned over to provide a thick bearing, so that the side of the aperture may not cut the tape, which extends through the
 40 aperture and half-way about the roller.

The clasp H extends about the roller, and in the ends thereof are perforations *m* to receive a tack *n*, by which the clasp and also the ends of the tapes G and G' are fastened
 45 to the roller, the stronger part of the clasp that has the lip *l* holding the tapes close to the roller, so that, as seen in Fig. 5, when the tapes G limits the unrolling movement of the roller the shade will still extend partially about the roller and be relieved of
 50 strains by the tapes.

In Figs. 9 and 10 a shade D' has its upper end *p* attached directly to the roller C by means of small tacks *q*, and at one side of the
 55 shade it is provided with a check device comprising a tape I, that is attached to the inner side of the shade by sewing or otherwise, the tape extending through the aperture *k* of the clasp H, by which the tape is connected to
 60 the roller C and secured thereto with the clasp by a tack *n'*. In this arrangement the shade has a greater lap than the tape on the roller, and the dogs are thrown out finally by
 65 the tapes.

Figs. 11, 12, and 16 show a shade D², hav-

ing its top *r* attached directly to the roller C by means of a thin metal strip *s* and tacks *t*, and provided with a check device formed by a slit *u*, that leaves a tongue *v*, which is made
 70 shorter than the top *r*, the end of the tongue *v* being secured to the roller by the strip *s* and tacks, the arrangement being such that when the tongue is fully unrolled from the roller the top *r* of the shade will have approximately
 75 a full lap about the roller.

In Figs. 14 and 15 a shade D³ has its upper end *w* extended about the roller C and somewhat beyond to the body of the shade, to which the end is attached by sewing *x* or
 80 otherwise at a suitable distance from the roller, and the end portion, at a little distance from the point of attachment to the body of the shade, is secured to the roller by a metal strip *s'* and tacks *t*, the part of the shade between the points of attachment
 85 with the roller and the body of the shade being the check device.

In practical use the check devices of either of the specific forms described will check the rotation of the spring-roller when
 90 the shades have been drawn down as far as they should be drawn or slightly farther with some portions of the shades or their suspenders remaining wound on the rollers and hold the roller with the dogs in inoperative
 95 positions. When the suspenders are employed and they are rolled on the roller, they will wind spirally, as in Fig. 2, without producing ridges or bulkiness on the roller. Fig. 6 illustrates the roller latched by the
 100 dog *f*, and it will be seen that the tape G may draw the roller so that the aperture *k* will descend enough to permit the dog to be released, so that the roller may operate to roll up the suspenders and then the shade.
 105 The arrows in the figures of the drawings indicate the direction of movement of the rollers when rolling up the shades, and it will be seen by reference particularly to Figs. 5, 10, 12, 15, and 16 that when the shade is drawn
 110 down entirely as far as intended to be the upper portions of the shades or their suspenders have frictional contact with the roller, and thus assist the tacks in holding them to the roller, while limited amounts of
 115 strains are put upon the check devices, being sufficient only to prevent rotation of the roller. Other operations in use will be understood from the description of the construction and arrangement of the several elements.
 120

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

1. The combination with a spring-roller and a window-shade, of a shade connection attached to the shade and extending partially about the roller and secured thereto, a
 125 tape-like check device attached to the shade and also to the roller, and a clasp device attached to the roller and connecting the check device operatively with the roller at a point
 130

remote from the point of attachment of the shade connection.

2. The combination with a spring-roller, and a shade connection extending partially about the roller, of a check device comprising a clasp extending about the roller and having an aperture therein, and a tape attached to the shade and extending through the aperture of the clasp and under a part of the clasp, the tape and the clasp being secured to the roller at a point remote from said aperture, substantially as and for the purposes set forth.

3. The combination with a spring-roller, and a shade having suspenders attached thereto and extending partially about the

roller and secured thereto, of a clasp having an aperture therein and extending about the roller, a pair of tapes secured to the shade and extending obliquely to the aperture and therethrough to a point on the roller remote from the aperture, and a fastener extending through the clasp and the pair of tapes into the roller, substantially as and for the purposes set forth.

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

CHEEVER L. WEBSTER.

Witnesses:

MARY C. ENGLISH,
JOHN ENGLISH.