No. 676,694. Patented June 18, 1901.

A. H. HOVER.

ADJUSTABLE WINDOW SHADE.

(Application filed Sept. 19, 1900.)

(No Model.) 2 Sheets—Sheet 1.

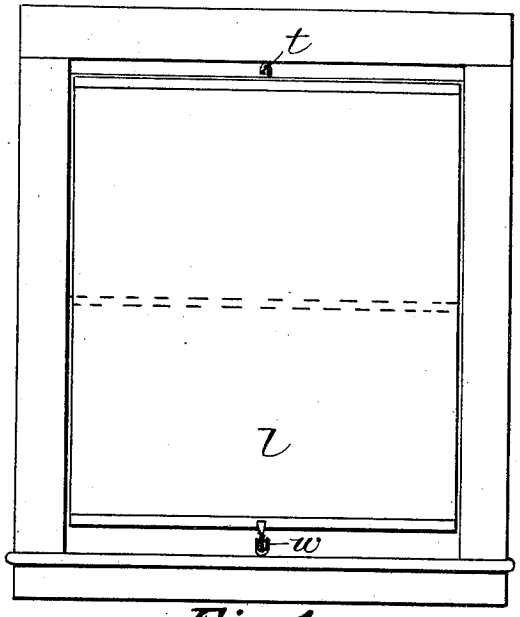
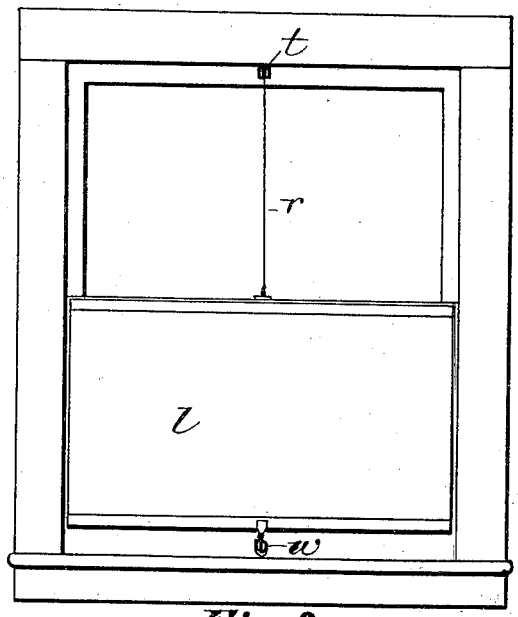


Fig. 1.



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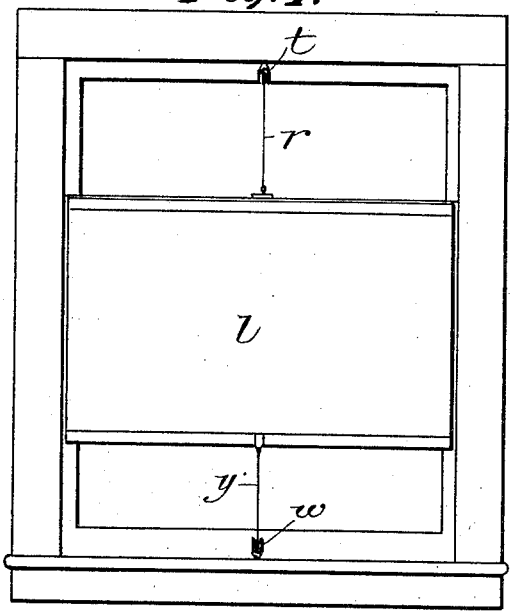

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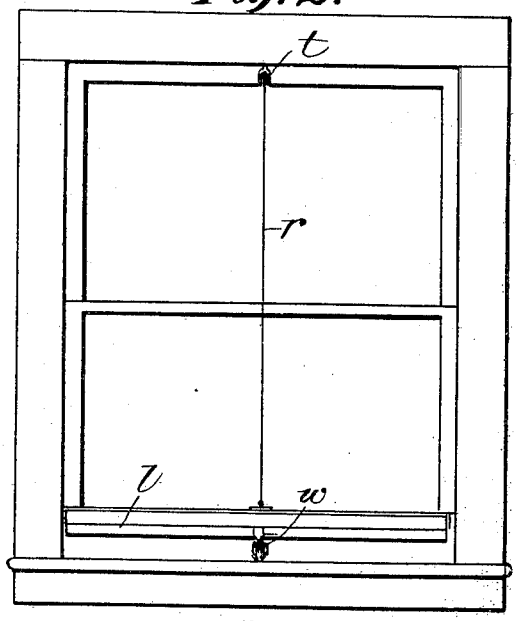

Fig. 4.

WITNESSES:
Harvey J. Buntin
Emma Hockenbrink

INVENTOR:
Albert Hartford Hover
BY Harrison & Acton
ATTORNEYS

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Fig. 5.

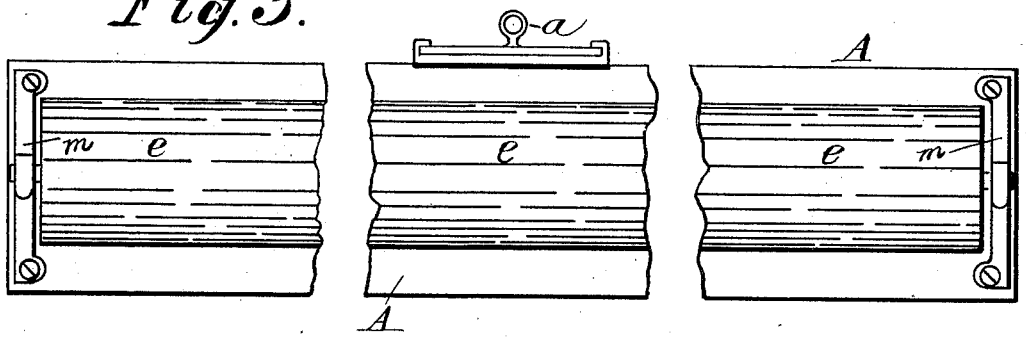
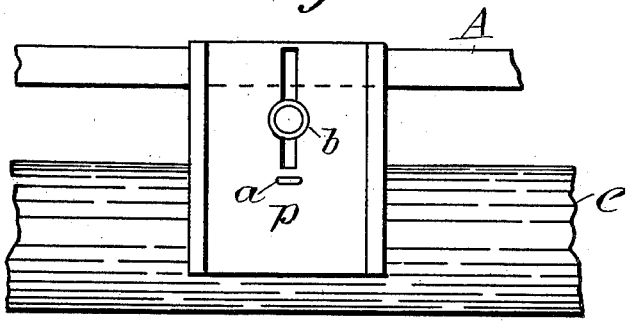


Fig. 6.



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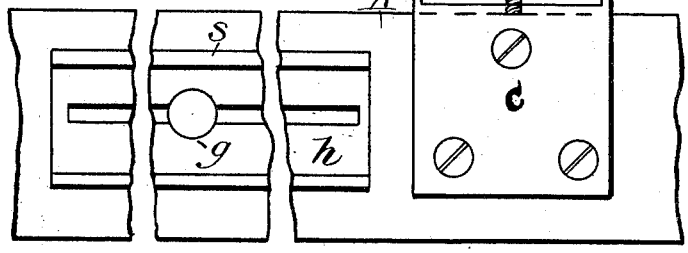


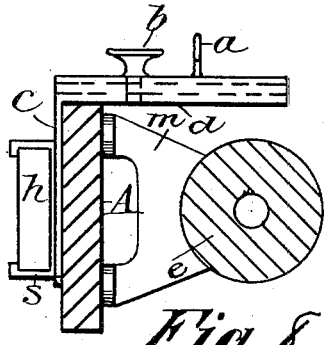
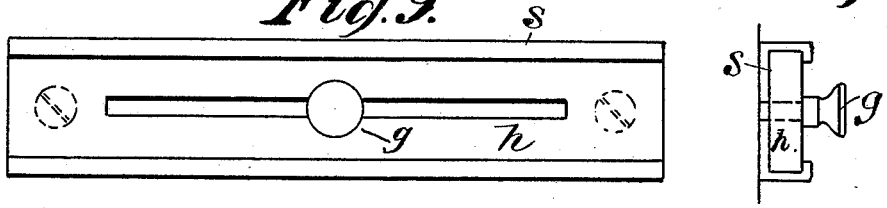


Fig. 8.

Fig. 9.



WITNESSES:

Harvey J. Buntin

Emma Hockenbink

INVENTOR

Albert Hartzell Hover,

BY Dawson & Peterson

ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBERT HARTFORD HOVER, OF CINCINNATI, OHIO, ASSIGNOR TO THE HANDY WINDOW SHADE ADJUSTER COMPANY, OF SAME PLACE.

ADJUSTABLE WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 676,684, dated June 18, 1901.

Application filed September 19, 1900. Serial No. 30,468. (No model.)

To all whom it may concern:

Be it known that I, ALBERT HARTFORD HOVER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Adjusting Window-Shades, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to rapidly adjust a single window-shade to the whole or any part of a window, so as to admit light from above or below the shade at will through any part or all of the window by readily lowering the shade from the top or raising it from the bottom.

In the drawings, Figures 1, 2, 3, and 4 are front elevations of a window, showing the shade in various positions. Fig. 5 is a front elevation of the shade-hanger with the shade-roller mounted thereon. Fig. 6 is a top plan view of the middle portion thereof. Fig. 7 is a rear view, and Fig. 8 a cross-section, of same. Figs. 9 and 10 are respectively front and side elevations of the adjustable weight for balancing laterally the shade and hanger.

A is a flat bar made of any suitable material and of a length to extend horizontally across the window-opening from side to side. Secured to this bar at each end are the brackets *m m*, within which is mounted the spindle of any suitable spring-roller *e* in the usual way, so that the shade *l*, mounted thereon, can be unrolled by drawing down on the end thereof, allowing the spring on the roller to wind up the shade when the same is released.

Attached to the back of the bar A at its middle portion by screws or otherwise is a right-angled plate or bracket *c*, the horizontal extension *d* of which extends out over the shade-roller *e* and is flanged or beveled at the side edges to carry the slotted plate *p*. This plate *p* carries an eye *a*, to which the cord *r* is attached for suspending the fixture in front of the window, the plate being adjustable to allow for the proper balancing of the fixture, and the plate being held in position by the thumb-nut *b*, which takes through the slot in the adjustable plate into the plate *d*.

In order to counterbalance the weight of the spring used to wind up the shade, I secure to the bar A, at or near the end opposite the spring, the flanged plate *s*. This plate carries a slotted weight-bar *h*, adjustable to obtain the proper balance and held by the screw *g*.

The cord *r*, by means of which the entire fixture is suspended, passes up over the stop-pulley *t*, secured to the middle of the window-frame above and allowing the other end of the cord to come down far enough to be grasped by the hand and used for adjusting the shade. A stop-pulley *w* also is secured to the middle of the window-sill below, and a second cord *y* is fastened to the middle of the free end of the shade and passed through this stop-pulley, and the shade is ready for use. When the lower cord is pulled, the upper stop-pulley holds the bar and spring-roller shade and the shade is pulled downward and may be pulled down far enough to completely shade the window. The upper pulley may be set in motion by pulling the cord and then releasing it, and the bar and rolled shade glide down from above, rolling as it descends, and the upper half or all of the window may be cleared of the shade in this way, so that the shade can be rolled from above downward or rolled from the bottom upward to any position desired.

In this shade no other fastenings are required except the stop-pulleys. The lower pulley can be dispensed with, if desired, and the shade operated by using the upper cord and then the lower cord, as though the shade were fastened in the usual way at the top. The ratchets in the spring-roller are used when only one pulley is used and not used when both pulleys are used. The shade hangs from the cord from the pulley above and is kept taut by the cord through the stop-pulley below. The bar and shade are easily rolled together, the cords unsnapped above and below, and the whole device taken from the window instantly. The fixture will accomplish more than two shades one rolled at the top and the other at the bottom, or two shades one rolled from the center upwardly and another rolled from the center downwardly, and in a large measure dispenses with the use of awnings for windows.

Inasmuch as the shade-roller is arranged in my device to be mounted in the same horizontal plane with the hanger-bar, it will be evident that this bar A can be arranged either to hug the window-frame on each side, with the shade-roller in front of the bar, or the arrangement can be reversed and the front bar arranged in front of the roller and the shade allowed to hug the sides of the window-frame.

I am aware that window-shade fixtures have been devised in which the shade-roller is mounted in a hanger and the hanger suspended by a cord passing over a pulley at the top of the window-frame, whereby the fixture is adapted to be raised or lowered and the shade rolled up from the bottom or the top in order to expose or cover all or any portion of the window desired; but in all such curtain-fixtures with which I am acquainted the roller has been suspended below the hanger, and as a result when the suspension-pulley is attached at the top of the window-frame the shade-hanger coming in contact with the pulley when the fixture is raised prevents the window-shade from completely closing the opening at the top. I overcome this difficulty by mounting my shade *l* in the same horizontal plane with the holder and suspending the fixture upon an adjustable bracket, and the point of suspension of the device being thus adjustable to prevent the tipping forward or backward of the fixture.

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

In an adjustable window-shade, a flat hanger-bar having a bracket at each end in which the roller and shade are mounted in the same horizontal plane with the hanger-bar, a cord for sustaining the fixture, a bracket secured to said hanger-bar and extending out toward the roller, a fastening device mounted on said bracket to which said cord is attached, and means for adjusting said fastening device transversely to change the point of suspension of the fixture, whereby the proper transverse balance may be obtained, substantially as shown and described.

Signed and dated by me this 7th day of September, 1900.

ALBERT HARTFORD HOVER.

Witnesses:

HARVEY J. BUNTIN,

CHARLES ROSENSTIEL.