E. W. Hastings,

Curtain Fixture.

No. 107,902. Patented Oct. 4. 1870.

Fig. 1.

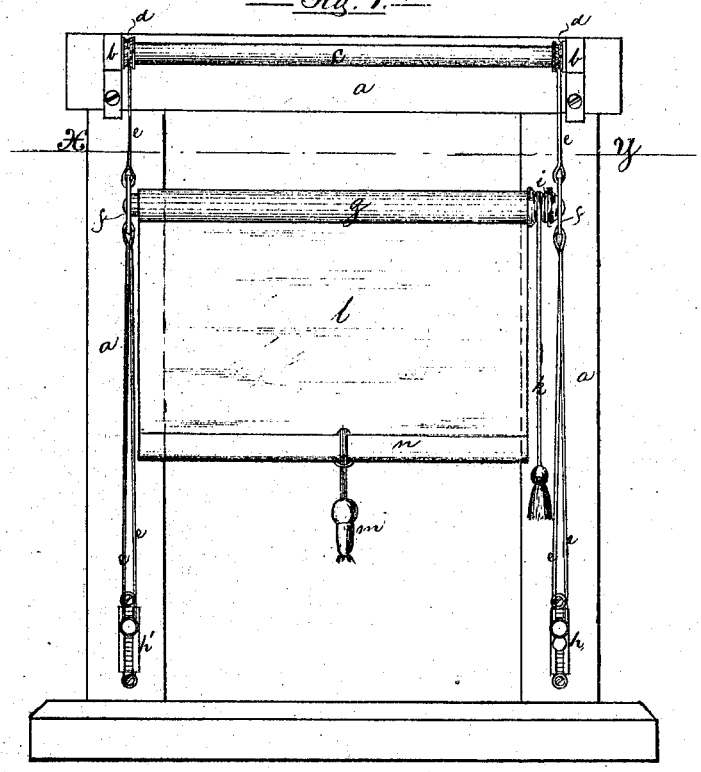


Fig. 2.

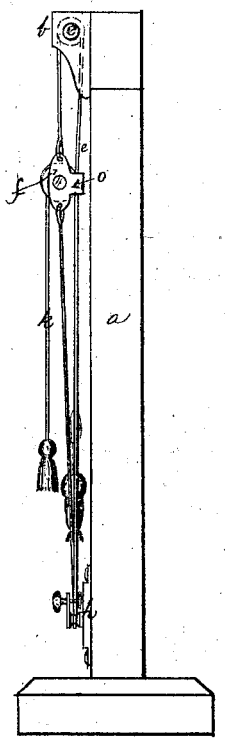


Fig. 3.

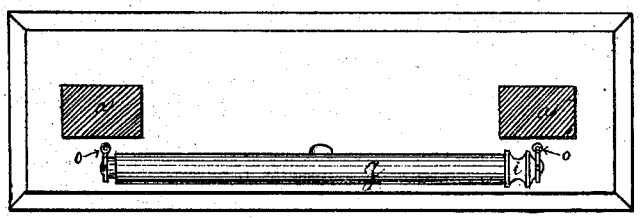
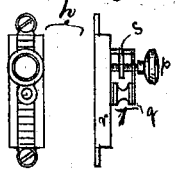


Fig. 4. Fig. 5.



Witnesses:

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F. A. Barton

Inventor.

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by his attorney Alban Andrén

United States Patent Office.

E. WARREN HASTINGS, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 107,902, dated October 4, 1870.

IMPROVEMENT IN ADJUSTABLE WINDOW-SHADES.

The Schedule referred to in these Letters Patent and making part of the same.

I, E. WARREN HASTINGS, of Boston, in the county of Suffolk and State of Massachusetts, have invented an "Adjustable Window-Shade," of which the following is a specification.

Nature and Objects of the Invention.

The nature of my invention relates to an improvement on window-shades, whereby the roller, that on common shades is stationary, may be moved up or down, so as to admit light from the top or bottom of a window, or, if the window is open, to admit the entrance of air from above or below the shade, as may be desired.

The objections to common window-shades are, that when the shade is lowered and the window opened at the top, all communication between the room and the outer air is prevented; also, if the shade is needed at the lower part of the window, the whole shade must be lowered to effect this, thus darkening the room more than is necessary; also, that if the upper window is lowered and the lower one raised, when the shade is partly down, fresh air may enter at the lower part of the window, but the exit of the impure air at the top is prevented by the shade covering the opening at the top.

To avoid these difficulties is the purpose of my invention, as by lowering the shade-roller, free communication may be had from the outer to the inner air when the window is opened at top or bottom, and if a covering is wanted at the lower part of the window, the roller can be lowered to effect this, and at the same time admit light from the top of the window.

In the drawing—

Figure 1 is a front view.

Figure 2 is a side view, seen from *y*, fig. 1.

Figure 3 is a section over the line *x y*, taken on fig. 1.

Figure 4 is an enlarged front view of the cord-holder *h*, and

Figure 5 is a side view of the said cord-holder.

a a is the window-sash, to the upper part of which is secured two bearings *b b*, supporting between them a rod, *c*.

The rod *c* has in each end a corrugated pulley, *d d*, over which the cords *e e* are moving.

The cords *e e* are attached to holes in the upper and lower end of pieces *f f*, the latter forming bearings for the adjustable shade-roller *g*, and wound over cord-holders *h' h*, so as to get necessary tension of the cords *e e*.

The adjustable shade-roller *g* has a pulley, *i*, attached in one end, over which the cord *k* is wound in a usual way.

The shade *l* is made to wind on or off the roller *g*, by means of pulley *i* and cord *k*.

A tassel, *m*, or similar arrangement, is secured to the rod *n*, at the lower end of the shade in a usual way.

The bearings *f f* have each in their rear part an eye, *o o*, as guides for the rear cords *e e*, whereby the cords are held in their proper places.

From the above it will be easily understood that when the cords *e e* are properly stretched, the adjustable roller *g*, with the shade *l*, may be raised or lowered simply by drawing one of the cords *e e* up or down, as the case may require.

The corrugated pulleys *d d* on the rod *c* impart an equal motion to the cords *e e*, in each end of the roller *g*, so that the said roller *g* will rise or fall always parallel with the rod *c*.

h' is a common cord-holder and stretcher, for the purpose of conducting the cord *e*, and giving it the proper tension.

h is a similar one, but supplied with a locking apparatus for the cord, as shown in an enlarged scale in figs. 4 and 5.

Fig. 5 shows the screw *p* playing through the plate *q*, which latter is secured to the body *r*, as shown.

A plate, *s*, is tapped to receive the thread of the screw *p*.

By this arrangement, the plate *s* can easily be pressed against the under side of the stationary piece *q*.

The cord is guided by the small pulley *t*, and placed in the space between the plate *q* and the movable piece *s*.

When it is desired to lock the cord *e*, I simply press the cord between the pieces *s* and *q*, by means of screwing the screw *p* to the right, when the cord is securely held so as not to allow any motion up or down of the shade.

By turning the screw *p* to the left, the hold of the piece *s* to the cord is loosened, and the shade may then be raised or lowered at pleasure.

Instead of the screw *p*, I also employ a spring, wedge, or similar arrangement.

Having thus described the nature, operation, and construction of my invention,

I wish to secure by Letters Patent, and claim—

The combination of rod *c*, sheaves *d d*, and bearings *b b*, with the cords *e e*, hangers *f f*, as constructed, with the guides *o o*, and roller *g*, provided with the shade *l*, when the several parts are constructed and arranged to operate in the manner and for the purpose herein described.

E. WARREN HASTINGS. [L. S.]

Witnesses:

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