

APPLICATION FILED DEQ. 16, 1908.

Patented June 8, 1909.



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WINDOW-SHADE ADJUSTER.

No. 924,448.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed December 16, 1908. Serial No. 467,853.

To all whom it may concern:

Be it known that we, ALBERT N. FRIES and ALBERT H. HOVER, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Window-Shade Adjusters, of which the following is a specification.

Our invention relates to improvements in window-shade adjusters.

One of its objects is to provide an improved adjuster for attachment to the upper cross-bar of the shade, and which is adapted to be securely attached to either wide and heavy cross-bars, or to narrow or light cross-bars.

Another object is to provide an improved manner of attaching and holding the adjuster to the cross-bar, and another object is to provide a simple, strong and durable adjuster attached to the cross-bar and carrying an eye and a suspending cord to hold the shade in any desired position.

It further consists in certain details of form, combination and arrangement, all of which will be more fully set forth in the description of the accompanying drawings in which:

Figure 1. is a front elevation of a window frame and shade with our improved adjuster attached. Fig. 2. is an enlarged detail sectional view of the adjuster on line *x x* of Fig. 1. Fig. 3. is an enlarged top plan view of the adjuster attached to a wide cross-bar. Fig. 4. is a view similar to Fig. 3. showing the adjuster attached to a narrow cross-bar. Fig. 5. is a perspective view of the adjuster detached and viewed from the rear. Fig. 6. is a detail sectional view of a modification.

In the accompanying drawings A represents the window-shade which is supported and adapted to be wound upon a shade roller B which is supported in hangers *b b'* carried by an upper cross-bar C which is suspended by a cord F from a catch pulley D at the top of the window frame E. The cross-bar C is adapted to be raised or lowered and supported at any desired elevation by means of the cord F, and its engagement with the catch pulley D.

In practice the cross-bars C vary in all their dimensions, this is due to variations in the width and length of the shades required, which in turn vary the weight of the shades and shade rollers. It is desirable that the

cross-bars vary in strength according to the weight of the shade and roller used, and also in order that the cross-bar and shade and roller may to a certain extent counter-balance each other, so as to hang in the desired position. Thus the adjuster to be interchangeable in nature, is required to be capable of firm attachment to wide or narrow cross-bars, and capable of adjustment so that the point of suspension or eye may be adjusted to a close approximation over the center of gravity of the parts to be suspended as a whole.

Our improved adjuster is adapted to be attached to and support the cross-bar C and to provide an eye by which the adjuster is suspended from the cord F. It is desirable that the adjuster be capable of interchangeable attachment to cross-bars of various dimensions, that it be adjustable at the time of attachment to the cross-bar, so that the eye will be the requisite distance from the cross-bar, and that the attachment be of such nature as to retain the cross-bar in the desired position.

Our improved adjuster comprises two arms K K' preferably of stiff or spring sheet metal pivotally attached together at one end. This may be effected as shown in Figs. 2 to 5 by means of the shank 1 of the eye L which passes through the washer M, and the ends of the two arms K K' and is threaded and secured in position by means of a nut *m*. It may also be effected by means of a hollow rivet M' passed through holes in the ends of arms K K' and clenched as shown in Fig. 6, the central opening *m'* in the rivet serving as an eye for the attachment of the cord F. The free ends of arms K K' are provided with a series of holes *k* so arranged that two screws may be employed to attach said arms to either a wide or narrow cross-bar.

N represents braces or fingers preferably of spring sheet metal which are pivotally attached by rivets *n* to the rear face of arms K K' through any of the holes *k'*, according to the size of the cross-bar. In attaching the arms K K' to the cross-bar the fingers N bear against the front of the cross bar with sufficient pressure to form a brace to hold the adjuster and cross-bar in the desired relative positions. The fingers N are left long enough to support the front of the wide or deep cross-bars, and their ends may be trimmed off when fitting the adjuster to narrow cross-bars. Also if desired the free

end n' of fingers N may be perforated and secured to the cross-bar by tacks or screws. As indicated in Fig. 2 the fingers N occupy a position between the shade roller and the cross-bar so as not to interfere with the movements of the roller and shade. The fingers N being pivotally attached to arms K K' can be adjusted to the desired position, and where constructed of spring metal will have a firm but slightly yielding pressure against the cross-bar. Figs. 3 and 4 show the manner of adjustment of arms K K' and plates N for both wide and narrow cross-bars.

We are thus enabled to provide a simple, strong and durable fixture, capable of interchangeable attachment to various cross-bars, and tending to retain the cross-bars in the desired position.

The device herein shown and described is capable of considerable modification without departing from the principle of our invention.

Having described our invention, what we claim is:

1. An article of the character indicated comprising arms pivotally connected to each other at one end and provided at the point of their connection with an eye for the attachment of a cord, the free ends of said arms being angularly adjustable and pierced with a series of holes for attaching said arms to a cross-bar.

2. An article of the character indicated comprising a pair of arms, an eye for attaching a cord, said arms being pivotally connected together at one end by the shank of said eye, the free ends of said arms being pierced with a series of holes for attaching said arms to a cross-bar and adapted to be adjusted to varying angles to interchangeably fit different cross-bars.

3. In combination with the cross bar of a window shade, an adjuster comprising a pair of arms pivotally attached at one end to each other and provided with an eye for the attachment of a cord, the opposite ends of the respective arms being attached to the cross-bar.

4. An article of the character indicated comprising a pair of arms, pivotally attached to each other at one end, and provided with an eye for the attachment of a cord, the free ends of said arms being adjustable to varying angles and adapted to be attached to a cross-bar, and braces pivotally attached at intermediate positions on said arms.

5. In combination with a shade roller and cross bar supporting the same, an adjuster comprising two arms pivotally attached to each other at one end and adapted to be attached to the cross bar at the opposite ends, downwardly projecting braces carried by said arms and bearing against the cross bar, and means for suspending said adjuster.

6. In combination with a shade roller and cross-bar supporting the same, an adjuster comprising two arms, pivotally connected to each other with their opposite ends adjustable to varying angles and adapted to be attached to the upper edge of said cross-bar, downwardly projecting braces carried by said arms, adapted to be attached to the front of said cross bar, and means for suspending said adjuster.

In testimony whereof we have affixed our signatures in presence of two witnesses.

ALBERT N. FRIES.
ALBERT H. HOVER.

Witnesses:

WALTER F. MURRAY,
C. W. MILES.