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WINDOW SHADE FIXTURE.

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To all whom it may concern:

Be it known that I, Daniel Hoyt, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful improvements in Window-Shade Fixtures, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to the class of shade-fixtures wherein the shade is mounted on a spring-actuated roller which constantly tends to wind or roll the shade thereon, the shade being held at the bottom by a rigid bar and an attached fixture forced in frictional engagement with, and guided by, grooves in the casing of a window-frame.

Curtain-fixtures of the type shown in the Hall patent, No. 483,490, of September 27, 1892, possess the grave disadvantage of the liability of the stick being disengaged from the window-jamb when tilted. On the other hand, curtain-fixtures of the type shown in the Forsyth and Forsyth patent, No. 559,446, of May 5, 1896, possess the advantage of greatly diminished liability of the stick being disengaged from the guiding-grooves in the window-jamb when it is tilted through careless handling, and this is due to the presence of the wings extending on opposite sides of the friction-tip; but this type of fixture possesses the disadvantage that when the relation between the strength of the spring of the shade-roller is not nicely adjusted to the thrust of the friction-tips and the parts are not in perfect working order the stick when tilted is apt to remain in a position far removed from the horizontal, due to the fact that the ends of the wings simultaneously contact with the bottom of the grooves in the opposite jambs of the window and remain stuck in that position.

The object of my present invention is to describe a fixture which shall combine the advantages of both the Hall and the Forsyth types and shall avoid the disadvantages of both. This I accomplish by providing the friction-tip with wings which when the stick is tilted by careless handling will maintain their engagement in the grooves of the window-frame, and thus prevent the stick coming out, and which are so constructed and arranged that both will not simultaneously contact with the opposite bottom surfaces of the grooves when it is tilted, and so will not prevent it automatically returning to the nearly-horizontal position when it is released.

The preferred form of the invention is clearly illustrated in the accompanying drawings, wherein—

Figure 1 is a view in elevation, illustrating a window-casing with a shade embodying my invention. Fig. 2 is an enlarged sectional view broken and partly in elevation, the parts being shown in position assumed under a moderate inclination of the shade-bar. Fig. 3 is an enlarged sectional view, partly in elevation, of one end of the shade-bar and a portion of the guideway, the parts being shown in the position assumed under extreme inclination of the shade-bar. Fig. 4 is an enlarged and broken view, in part sectional and in part in elevation, showing the horizontal or holding position of the fixture.

Referring to the drawings, the window-casing 1 is formed with longitudinally-arranged grooves or guideways 2, the usual shade 3, having a shade-bar 4 at the lower end, being mounted for cooperation with the window-opening in the casing.

The holding means of the present invention is in duplicate at each end of the shade-bar 4 and comprises a sleeve 5, secured within a bore 6, formed in the end of the shade-bar and held therein by a set-screw 7 engaging the sleeve near its outer end. The opposite or inner end of the sleeve is closed by a block 8, the relative lengths of the sleeve 5 and bore 6 providing a free space in rear or beyond the inner end of the sleeve and clearly shown in the drawings.

A shank 9 is mounted for movement within the sleeve, being provided at its inner end with a reduced stem 10, extending longitudinally of the sleeve and through the block 8, the end of the stem beyond the block being formed with a head 11, adapted on the forward movement of the stem to contact with the block and limit said movement.

The free and outer end of the shank 7 is provided with a friction-head 12, preferably of a size and shape to fit within the guideway 2, the operative or outer face of said head being roughened, as at 13, or otherwise formed to insure frictional engagement with the bottom of the guideway.
A spring 14 is coiled about the stem 10 within the sleeve, bearing at one end against the black 8 and at the opposite end against the inner end of the shank 7. The spring 14 is tensioned to normally maintain operative engagement of the friction-head 12 with the guideway, whereby to hold the shade in horizontal position relative to the casing.

The head 12 is constructed with wings or extensions 15, projecting in opposite direction from the upper and lower sides of the head 12 and terminating coincidently with a curved line drawn through the face of one head from a point on the shade-bar adjacent to the opposite head. These wings or extensions 15 are never in simultaneous contact with the frictional bearing-surface of the respective guideways, and when the frictional bearing-point 13 of said head is free from engagement with the guideway under an inclination of the shade-bar and its outward movement arrested the ends of the wings or extensions contact with the side walls of the guideway and for the sole purpose of preventing the disengagement of the heads therefrom.

In practice the shade is maintained in adjusted position by frictional engagement of the head 12 with the guideways; but in the event the shade-bar is grasped near either end to elevate or depress the curtain, with the resultant inclination of said bar, as illustrated in Fig. 2, the frictional engagement of the head 12 at the bottom of the guideways is released. In this position, however, the upper or lower wing 15, as the case may be, serves to maintain the head 12 within the guideways and prevent disengagement therefrom, so that the shade may be easily and readily guided in movement notwithstanding the inclination of the shade-bar. Should said bar be given an extreme inclination in the operation of the shade—such, for example, as illustrated in Fig. 3—the construction provides for the complete withdrawal of the head from the guideways by a further inclination of the bar.

Owing to the termination of the wings 15 in the plane heretofore referred to, said wings will not simultaneously contact with the bottom or bearing wall of the guideways under any position of the shade-bar whatever, and all frictional contact between these parts is therefore avoided.

What I claim as new, and desire to secure by Letters Patent, is—

The combination with a casing provided with guideways and a shade having a shade-bar of holding means carried by the ends of said bar, each of said holding means including a friction-head adapted for contact with the bottom of the respective guideways when the shade-bar is in its normal or horizontal position, and means to prevent disengagement of the holding-fixtures from the guideways when the shade-bar is in a tilted position, said means being constructed and arranged so that they will not simultaneously contact with the bottoms of the respective guideways in any position of the shade-bar.

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

DANIEL HOYT.

Witnesses:

CHAS. W. FORRES,

RICHARD H. GATLING.