(No Model.)

# F. E. WAGNER.

## ADJUSTABLE WINDOW SHADE FIXTURE.

No. 523,559. Patented July 24, 1894.

Fig. 1.

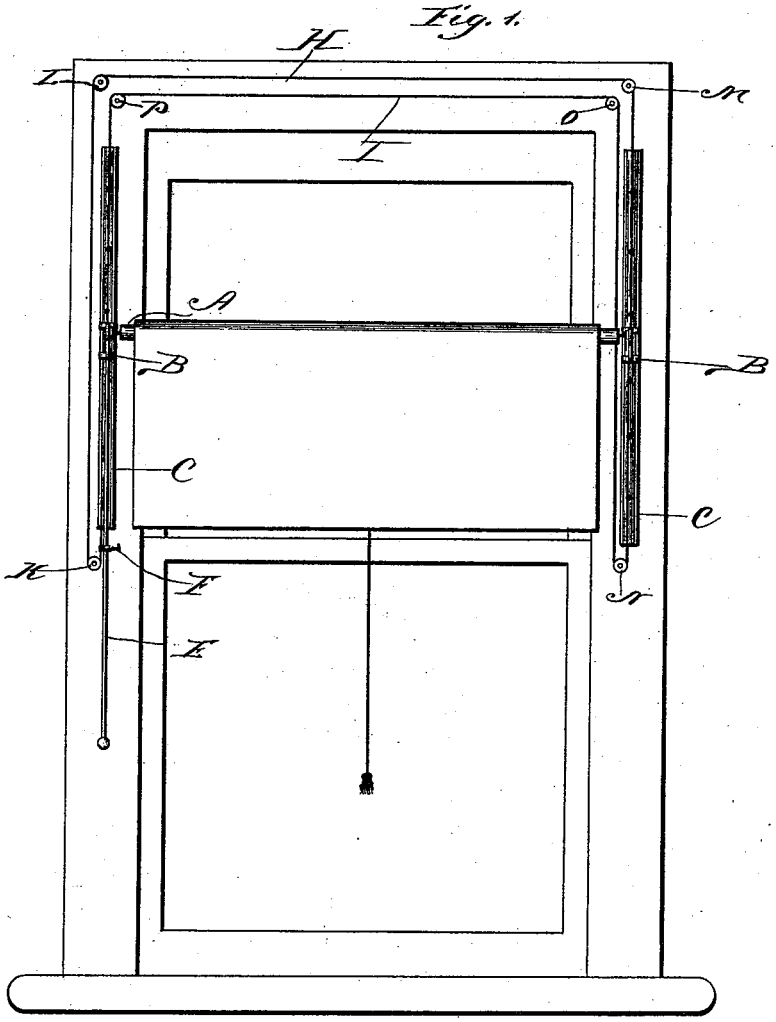


Fig. 2.

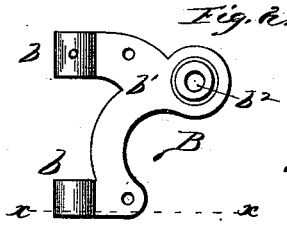


Fig. 3.

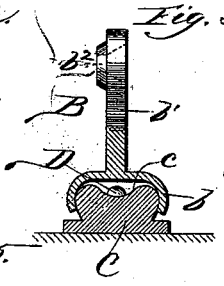


Fig. 4.

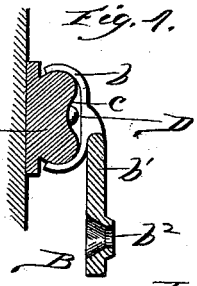


Fig. 5.


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# UNITED STATES PATENT OFFICE.

FRED E. WAGNER, OF CHICAGO, ILLINOIS.

## ADJUSTABLE WINDOW-SHADE FIXTURE.

SPECIFICATION forming part of Letters Patent No. 523,559, dated July 24, 1894.

Application filed January 9, 1893. Serial No. 457,771. (No model.)

*To all whom it may concern:*

Be it known that I, FRED E. WAGNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Adjustable Window-Shade Fixtures, of which the following is a specification.

My invention relates to shade or curtain fixtures of the kind in which the shade or curtain roll is supported for vertical adjustment, whereby it can at will be placed at any desired height relatively to the top of the window.

The objects of my invention are to provide a simplified, easy working, convenient, and highly efficient construction and arrangement of adjustable fixtures for shades or curtains; to insure even and steady movement and balance of the fixture during its adjustment; to adapt the fixture for ready and convenient application to all kinds of windows; and to provide certain novel and improved details hereinafter more fully described in connection with the accompanying drawings, in which—

Figure 1 represents in side elevation a window and its frame, with my improvement applied. Fig. 2 is a side view of one of the sliding roll bearings. Fig. 3 is a cross-section through one of the sliding roll bearings and its guide on line *x*—*x*. Fig. 4 shows another form of sliding roll-bearing. Fig. 5 shows an arrangement of double pulley, which in some instances can be used to advantage.

The bearings for the shade or curtain roll A, are formed by or provided upon vertically movable slides B which broadly considered, form vertically movable bearings or supports for the roll. These bearings or supports are adapted to work along guide strips C which can be secured to any desired part of the window frame, or to the stops or strips where such arrangement becomes necessary. These supports can be connected with the guides by any suitable form of tongue and groove connection, although I prefer the form shown in Fig. 3, since by such arrangement but little friction is incurred, and further, the channel or groove *c* along its face permits its fastening screws D to be sunk well away from and hence out of contact with the sliding supports B. These strips provide an exceedingly simple construction of guide, and obviously, where it is not desirable to secure the same to the molding of a window frame, said guides can be secured to the stops or strips commonly arranged alongside the sash.

As a means for raising and lowering the bearings or supports B, I provide one of them with a pendent rod E which works through a small eye or guide F upon the window-frame. Said guide is provided with a suitable latch or stop consisting for example of a thumb-screw, whereby the rod can be locked in its adjustment. In order to cause the bearings or supports B to move synchronously and steadily, when either an up push or down pull is given rod E, and also to balance the adjustable fixture so as to dispense with all necessity for springs or weights, I provide cords H and I which are connected with the sliding bearings and arranged to pass over pulleys upon the window-frame.

With reference to the arrangement and action of the cord or cable H for example, it will be seen that its allotted pulleys K, L, and M are so positioned that when force is applied to move one of the bearings B, in one direction, the cord will draw upon the opposite bearing B so as to move it in a corresponding direction. To such end therefore, the pulley K is arranged below one of the sliding bearings, and the pulleys L and M are arranged respectively at one and the other of the upper corners of the window frame, so as to permit the cord to pass from the lower end of one of the sliding bearings, downwardly to and under the pulley K, thence upwardly to and over the pulley L, thence across to and over the pulley M, and thence downwardly to the upper end of the remaining one of the said sliding bearings.

The arrangement of the cord or cable I, is the converse of the arrangement of the cord or cable H, and to such end it passes from the lower end of one of the sliding bearings downwardly to and under a lower pulley N, thence upwardly to and over a pulley O, thence across to and over a pulley P, and thence downwardly to the upper end of the remaining sliding bearing. When therefore the rod E is drawn downwardly for the purpose of lowering the shade roller, it will exert a direct down pull upon the sliding bearing to which

it is attached, and this said bearing will simultaneously therewith exert a corresponding down pull upon the opposite sliding bearing through the medium of the cord I. In like manner, when the rod is pushed upwardly, the up movement of the sliding bearing to which it is attached will exert an up pull upon the opposite sliding bearing through the medium of the cord H. By such means therefore, the two sliding bearings must move synchronously and hence will work easily and avoid all tendency to bind upon their alloted guides. This arrangement or system also operates as a counter-balance and prevents sudden drop of the fixture should the rod E be unlocked and released. The lower pulleys K and N are arranged adjacent to the lower ends of the guides C, so as to avoid unnecessary and undesirable length of cords, it being observed that these cords are not employed as means for raising and lowering the shade roll, but are employed to render the use of a single adjusting rod E both practical and convenient.

For some purposes I can in place of separating the upper corner pulleys as shown in Fig. 1, place each pair upon one spindle, so as to render the arrangement neat and compact as in Fig. 5, as will be obvious without further illustration. It will be understood however that when the axle for the two pulleys is supported by a holder R and the latter is provided with a shank $r$ by which it can be secured to the window casing, said shank will be secured in the vertical side of the casing which is at a right angle to the plane of the window, and in some instances such arrangement is desirable, particularly where it is more convenient to thus locate the pulleys than to arrange them upon the front of the casing as in Fig. 1.

The slides or bearings B are preferably formed so as to provide each with a pair of separated bearing portions $b$ which engage and slide upon the guide-strip, thereby providing a neat and desirable construction. Where for example the guide strips are to be attached to the sides of the window frame which lie in planes at right angles with the plane of the window, the portion $b'$ of the bearing which has the opening $b^2$ for the roll journal can be formed so as to lie at a right angle to its part which is provided with the bearing portions $b$, as in Fig. 4 so that said portion $b'$ shall lie parallel with the plane of said side of the window frame.

What I claim as my invention is—

An adjustable shade fixture comprising in combination and arrangement, the shade-roll, vertical guides, a pair of bearings for the shade-roll arranged to slide along the vertical guides, upper and lower pulleys arranged as set forth, cord from each bearing carried down to and about the pulley below the same, thence upwardly to and over one of each pair of upper pulleys and thence down to the opposite bearing and means for synchronously adjusting the two bearings consisting of a pendent operating rod connected with one bearing whereby both bearings can be moved simultaneously by means of a rod connected with one of them, substantially as described.

FRED E. WAGNER.

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