No. 704,894. Patented July 15, 1902.

W. K. MARTIN.

WINDOW SHADE SUPPORT.

(Application filed July 3, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

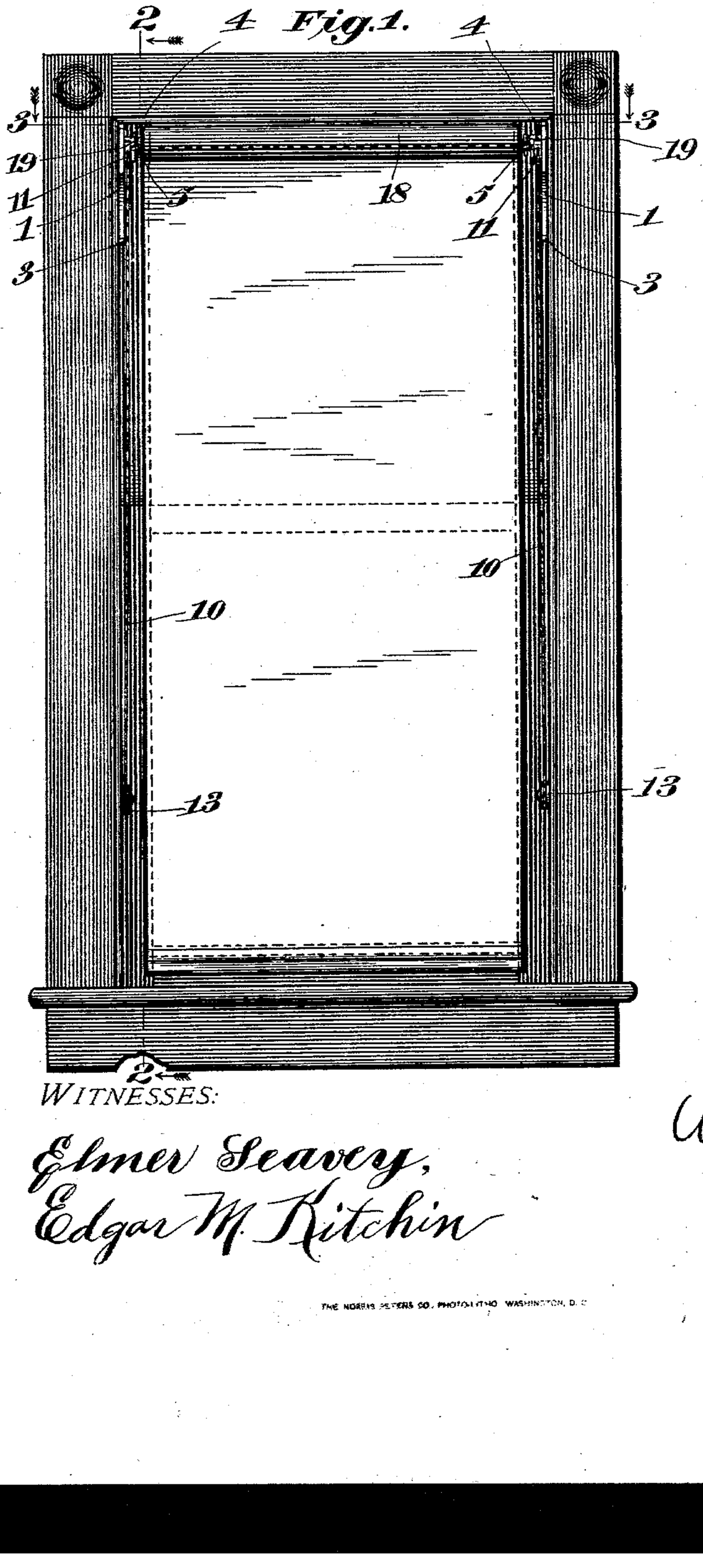
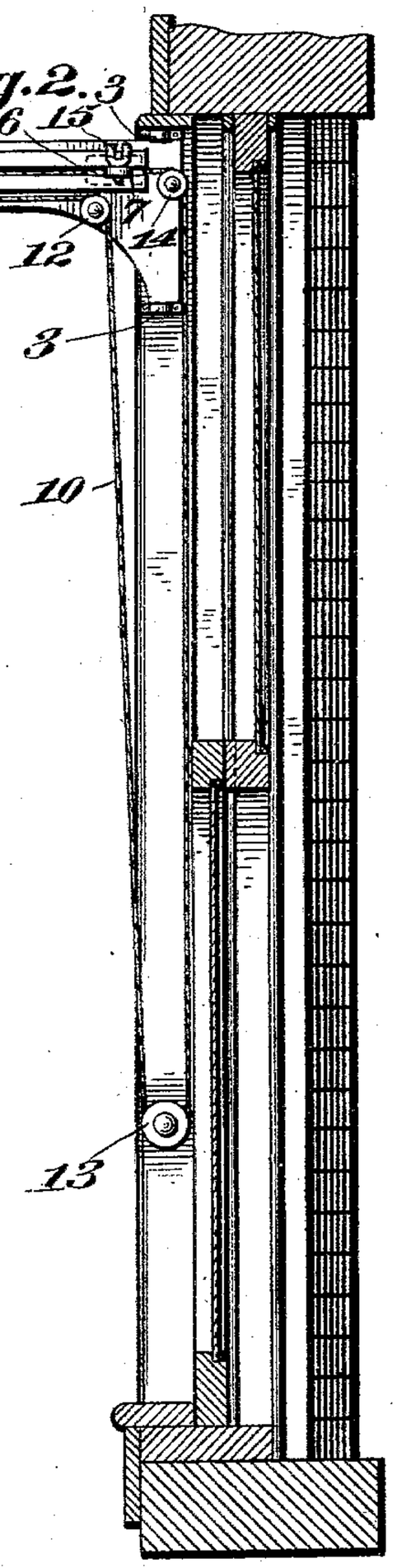


Fig. 2.



WITNESSES:

Elmer Seavey,
Edgar M. Kitchin

INVENTOR

Will K. Martin

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Fig. 3.

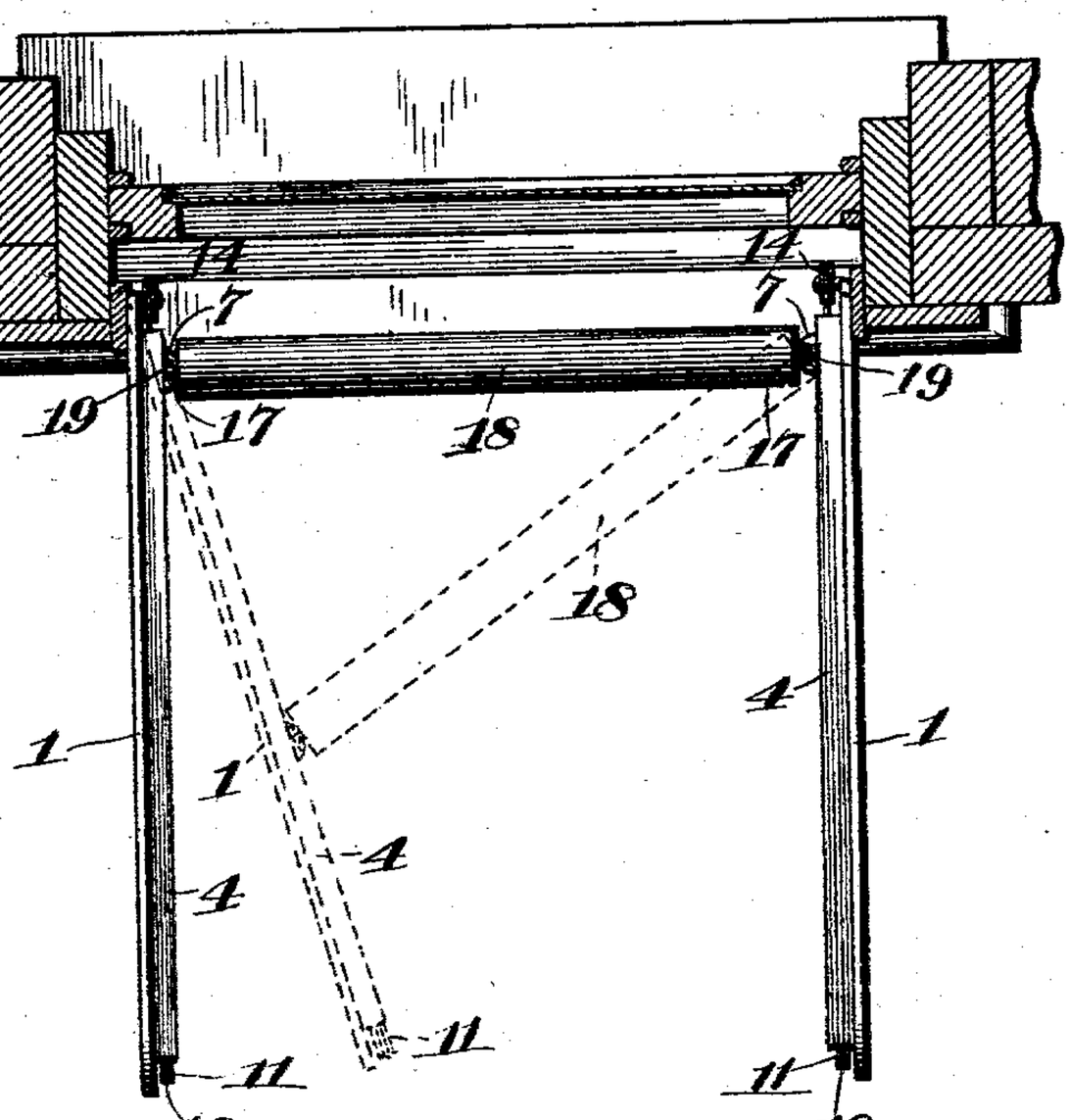


Fig. 4.

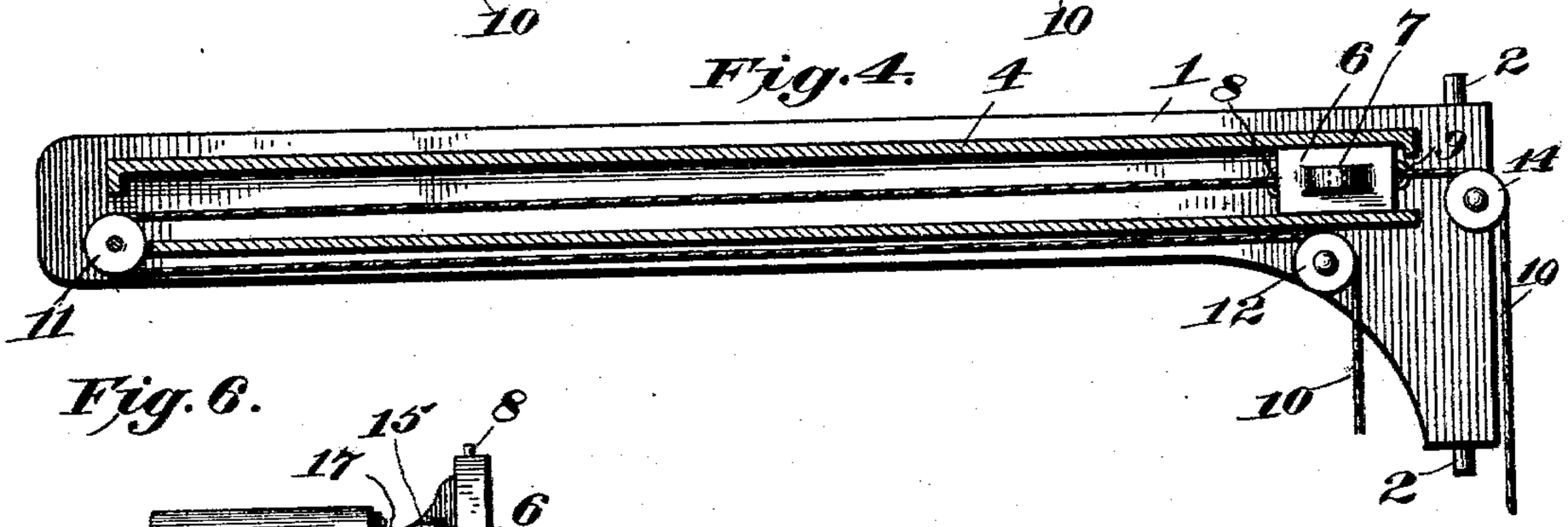


Fig. 6.

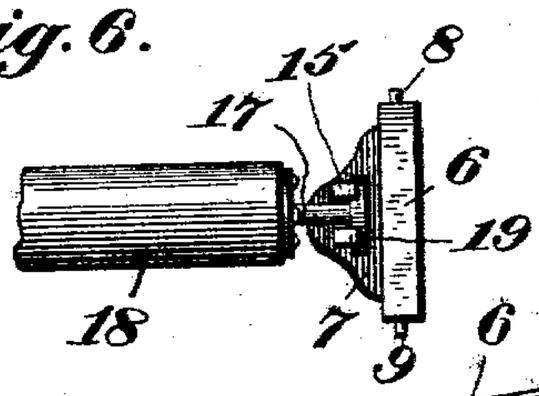
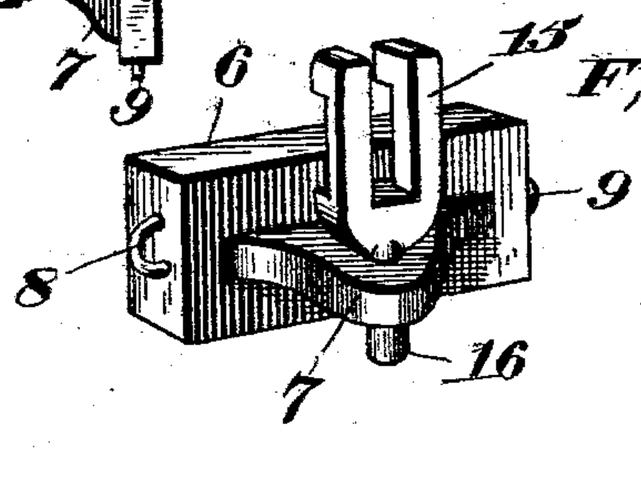


Fig. 5.



INVENTOR

Will K. Martin

WITNESSES:

Elmer Seavey.

Edgar M. Kitchin

UNITED STATES PATENT OFFICE.

WILL K. MARTIN, OF WASHINGTON, DISTRICT OF COLUMBIA.

WINDOW-SHADE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 704,894, dated July 15, 1902.

Application filed July 3, 1901. Serial No. 67,000. (No model.)

To all whom it may concern:

Be it known that I, WILL K. MARTIN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Window-Shade Supports; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in window-shade supports, and has particular reference to a shade-support which is capable of adjustment for setting the shade at any desired angle.

It consists of parallel arms pivotally supported by a window-casing, movable brackets carried thereby for supporting a shade-pole, and means for adjusting said brackets longitudinally of said arms.

It also consists of arms pivoted at their inner ends to the vertical walls of a window-casing, a housing extending longitudinally of each of said arms, a bracket slidable within each of said housings and each adapted to support one end of a shade-pole, and a flexible cable secured to each of said brackets and adapted to be operated for moving the same longitudinally of said housings.

It further consists of parallel arms carried by the sides of a window-casing and free to swing toward the window in a horizontal plane, housings carried by said arms, longitudinal slots formed in said housings, a block slidable within each of said housings and having a perforated flange extending through said slot, a bracket engaging each of said perforated flanges, each bracket being adapted to support one end of a curtain or shade pole, and means operable from the lower portion of the window for sliding said blocks longitudinally of said housings.

It still furthur consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of a window having applied a window-shade support embodying the features of the present invention. Fig. 2 represents a longitudinal vertical section on line 2 2 of Fig. 1, one of the supporting-arms being thereby shown in side elevation. Fig. 3 represents a transverse horizontal section on line 3 3 of Fig. 1, the shade-support being shown in top plan. Fig. 4 represents a view in side elevation of one of the supporting-arms, the front wall of the housing being cut away to more clearly illustrate the elements. Fig. 5 represents an enlarged detail perspective view of the sliding block and its pole-supporting bracket, and Fig. 6 represents a detail top plan view of a portion of a curtain-pole with the head of its axis in engagement with its bracket.

In the positioning of window-shades, particularly in rooms occupied by a large number of persons, it has been found extremely difficult to so arrange the same as to give a proper or desirable proportion of light to all of the said occupants, and to accomplish this result in the easiest possible manner I provide, as seen by reference to the drawings, suitable horizontally-disposed arms, as 1 1, which are adapted to be pivoted at any suitable point, preferably to the casing of the window, by means of any suitable pintles, as 2 2, finding bearings in any preferred sockets, as 3 3; but of course any form of hinges desired may be employed.

Arranged longitudinally of each of arms 1 and secured thereto in any suitable manner is a housing, as 4, which is provided with a longitudinal slot, as 5, in which slot operates the flange 7 of a suitable block, as 6, which block is adapted to slide longitudinally within said housing. Eyes, as 8 and 9, are formed upon or secured to the ends of block 6 and are adapted to receive the ends of a flexible chain or cable, as 10, which chain or cable passes out suitable apertures at the ends of housings 4, one part of the said cable passing about a suitable antifriction-pulley, as 11, near the outer end of arm 1, the end corresponding to that part being secured to eye 8 of block 6, and after passing said pulley 11 it passes about a second pulley, as 12, and is then directed downwardly and about a similar pulley, as 13, and upwardly again about a pulley, as 14, and is finally secured at its end to eye 9, whereby an endless-cable effect is produced, and a pull upon cable 10 at any point of its length will effect the moving of

block 6 in a direction corresponding with the direction of the pull. Flange 7 is preferably perforated to receive the shank 16 of bracket 15, whereby said bracket is free to rotate; but of course it will be seen that any preferred form of pivotal bracket may be employed in conjunction with block 6. Bracket 15 may be provided with a slot for the reception of the squared end of the axis of the common form of shade-pole provided with the well-known spring-operating mechanism, or it may be provided with a circular aperture at the inner end of the slot for forming a bearing for the cylindrical axis of the said pole, one of each form being employed for supporting each curtain-pole, as is common. The axes, as 17 17, of shade-pole 18 are formed one polygonal and the other cylindrical, as is common, and a head, as 19, larger than the slot in said bracket is formed upon each of said axes, whereby the same must be applied to the said brackets by a lateral movement and cannot be removed longitudinally.

In operation, the parts being in the position shown in full lines in Fig. 3, a pull upon cable 10 at one side of the window will bring the parts to the position shown in dotted lines in said figure, with the pole 18 setting at an acute angle to each of the arms 1, the arm 1 carrying the moved end of the pole having moved inwardly sufficiently to compensate for the altered position of the said pole. A similar pull upon the cable 10 upon the opposite side of the window would bring the other end of pole 18 to a corresponding position upon its arm 1 to that occupied by the first-mentioned end, whereby the arms would be caused to again assume their parallelism. It will be seen that the curtain may be moved outwardly entirely to the end of housings 4 by simply pulling equally upon the cables 10, and to return the curtain to its normal position requires only a reverse pull upon the said cables.

It will be readily seen that many advantages accrue from the construction of the various features of my present invention, the chief one of which is of course the ready adjustment of the shade or curtain to any desired position or angle, and many minor advantages will be apparent which do not need mentioning. One other prominent advantage lies in the fact that arms 1 may be readily applied to any window-frame, whether in a house or upon the market and in condition for being placed in a house. The present construction is particularly well adapted for being placed upon window-frames which are upon the market, owing to the fact that the said arms 1 may when not prevented by the interposition of pole 18 be folded inwardly upon themselves, and the said window-casing will occupy no more room when provided with the said arms and the remaining features of my present invention, except the said pole, than if the said improvements were not present.

Although I have described and shown in detail one particular embodiment of the present invention, yet I do not wish to be understood as limiting myself to the exact form of structure specified, but shall feel at liberty to deviate from the exact size, shape, and minor details of the present parts within the spirit and scope of my invention.

It will of course be apparent that arms 1 will be pivoted to the sides of the window-casing at a sufficient distance from the outer edge thereof to present enough of the side of each of the said arms to its respective side of the said casing to prevent the said arms from being pivoted outwardly beyond a right angle to the vertical plane of the respective sides of the window-casing, although the said arms are free to be swung inwardly.

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

1. In a window-shade support, the combination with a window-casing, of arms secured thereto, brackets movably supported thereby and adapted to support the ends of a curtain or shade pole, and means for moving said brackets longitudinally of said arms, substantially as described.

2. A window-shade support comprising in its construction parallel arms pivotally supported, curtain or shade pole carrying means movable thereupon and carried thereby, and means for moving the same, substantially as described.

3. In a window-shade support, the combination with a window-casing, of arms pivoted at their inner ends to the said casing, housings secured to said arms, curtain or shade pole carrying means movable within said housings, and means for moving the same, substantially as described.

4. In a window-shade support, the combination with a window-casing, of parallel arms pivoted thereto, housings secured to and extending longitudinally of said arms, brackets, adapted to support the ends of curtain or shade poles, movably supported by said housings, and means for moving said brackets longitudinally of said housings, substantially as described.

5. In a window-shade support, the combination with a window-casing, of parallel arms secured to said casing, housings extending longitudinally of said arms and provided each with a longitudinal slot, a slidable block within each of said housings, a flange upon each of said blocks and extending through its respective slot, a bracket carried by said flange, and means for moving said blocks longitudinally of the housings, substantially as described.

6. In a curtain or shade support, the combination with suitable uprights, of arms pivoted thereto, slotted housings extending longitudinally of said arms, a slidable block carried within each of said housings and extending through said slot, a bracket pivotally sup-

ported by said block, and an endless cable adapted to move said block longitudinally of its housing, substantially as described.

7. In a curtain or shade support, the combination with suitable uprights, of arms carried thereby, a block slidably supported by each of said arms, each of said blocks having an eye at either end, a cable having its ends secured to the said eyes, one part of the said cable passing longitudinally of its said arm, having its end secured to one of the said eyes, and about a pulley at the outer end thereof, then passed back for a part of the length of said arm and about a second pulley, thence downward about a pulley carried by said upright, and upward again, about another pulley and longitudinally of said arm and its opposite end secured to the opposite eye, whereby an endless-cable effect is produced, and a bracket carried by each of said blocks and adapted to support the ends of a curtain or shade pole, substantially as described.

8. In a window-shade support, the combination with a window-casing, of parallel arms pivotally secured thereto and extending at a right angle therefrom, a slotted housing extending longitudinally of each of said arms, slidable blocks within said housings, flanges upon said blocks extending through said slots, curtain or shade pole carrying brackets carried by said flanges, eyes formed upon either end of each of said blocks, and a cable secured to one of said eyes at one end of each of the said blocks, passed longitudinally of each of said housings within the same, about antifriction means at one end thereof, over suitable antifriction means carried by the sides of said window-casing, longitudinally into said housings, and secured at the opposite end to the opposite eye of the said block, substantially as described.

9. A window curtain or shade support comprising pivotally-supported, parallel arms, brackets supported by said arms and slidable longitudinally thereof, means for sliding said brackets longitudinally of said arms, and a pole provided with axes having heads at their outer ends, whereby said axes may be applied laterally upon said brackets and cannot be removed longitudinally, substantially as described.

10. In a curtain or shade support, the combination with suitable uprights, of arms extending therefrom, brackets supported thereby and movable longitudinal thereof and designed to support a curtain or shade pole, and flexible means operable below said arms for moving said brackets, substantially as described.

11. A window curtain or shade support, comprising arms pivotally supported to swing in the same horizontal plane, a curtain or shade pole pivotally attached to said arms, and means for moving said pole to various angles relative to said arms, substantially as described.

12. In a window curtain or shade support, the combination with a window-frame, of arms projecting at right angles thereto, curtain or shade pole carrying brackets movably supported thereby, and means for moving the same longitudinally of said arms, toward or from said window-frame, substantially as described.

13. In a curtain or shade support, the combination with suitable uprights, of pivotally-supported arms extending therefrom, in such manner that the same are adapted to be swung laterally in a horizontal plane, and brackets slidably mounted upon said arms for supporting a curtain or shade pole, substantially as described.

14. A curtain or shade support, comprising arms pivotally supported, a curtain or shade pole carried thereby, and means pivotally connecting the ends of said pole with said arms whereby the pole may assume a position at an acute angle to each of said arms, substantially as described.

15. A curtain or shade support, comprising arms pivotally supported, a curtain or shade pole carried thereby, in such manner as to be capable of assuming an acute angle with respect to each of said arms, and means for imparting a lateral movement to said pole, longitudinally of said arms, substantially as described.

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

WILL K. MARTIN.

Witnesses:
HARRY S. WELCH,
EDGAR M. KITCHIN.