Jan. 4, 1927. 1,613,074

W. A. BILES

SHADE SUPPORTING STRUCTURE

Original Filed Jan. 20, 1923

Fig. 1.

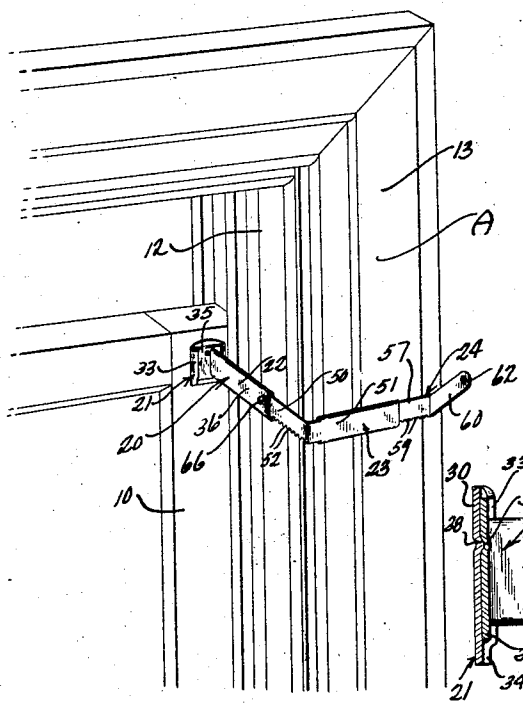


Fig. 4.

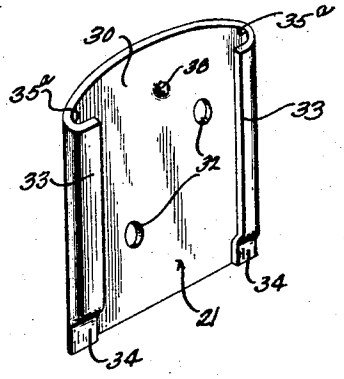


Fig. 3.

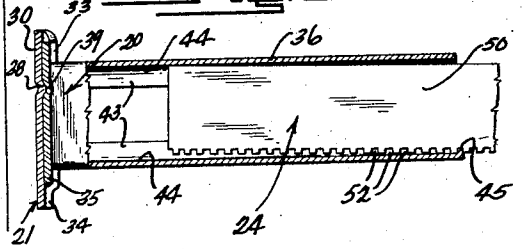


Fig. 2.

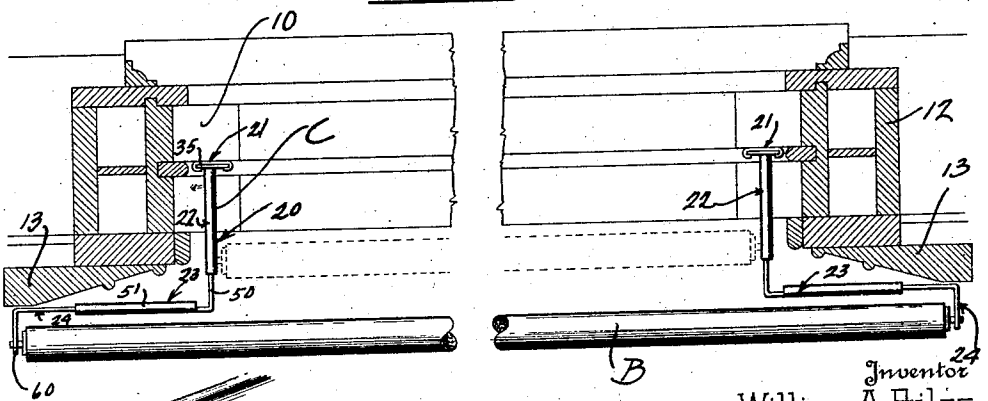
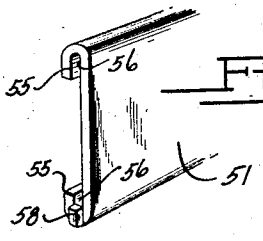


Fig. 5.



Inventor
William A. Biles
By Lancaster and Allwine
Attorneys

Patented Jan. 4, 1927. 1,613,074

UNITED STATES PATENT OFFICE.

WILLIAM A. BILES, OF CHICAGO, ILLINOIS.

SHADE-SUPPORTING STRUCTURE.

Application filed January 20, 1923, Serial No. 613,907. Renewed February 12, 1925.

This invention relates to improvements in shade supporting structures.

The primary object of this invention is the provision of a novel type of shade supporting structure, embodying means whereby the shade may be attached directly to the sash element of a window structure, so that the shade may be adjusted with the sash.

A further object of this invention is the provision of a shade supporting structure for window sashes, embodying sets of adjustable supporting fixtures which permit the use of a relatively wide shade so that the same may overlap the jamb or casing portions of the window construction much in the same manner as the ordinary shade.

A further object of this invention is the provision of a curtain or shade supporting structure, embodying extensible fixtures which will permit the attachment of shades of varying widths to sash or casing portions of the window structure.

A further object of this invention is the provision of a novel shade supporting structure of the above described character, which is extremely simple in construction and economical to manufacture.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views.

Figure 1 is a fragmentary perspective view of a fixture portion of the improved shade supporting structure showing the same as adjustably mounted upon a sash of a window construction.

Figure 2 is a transverse cross sectional view, taken through a window construction, showing the manner in which the various details of the improved shade supporting structure are attached to the window construction as to adjustably support a shade or curtain fixture in novel manner.

Figure 3 is a fragmentary view, partly in cross section, showing certain adjustable features of the improved shade supporting structure.

Figure 4 is an enlarged perspective view of a socket element adapted for direct attachment to a window construction, to receive other details of the improved shade supporting structure.

Figure 5 is a fragmentary perspective view of a detail of the invention.

In the drawing, wherein for the purpose of illustration is shown but the preferred embodiment of this invention, the letter A generally designates the improved window construction, which may embody one or more sashes 10, supported by the window casing 12 in any approved manner for vertical or horizontal adjustment. The casing portion 12 ordinarily includes the exposed jambs 13, and it is desirable that the curtain B is of width sufficient to overlap the jamb portions 13 to exclude light, and to give that degree of privacy desired. The improved supporting structure C includes novel sets of fixtures, whereby such a shade or curtain arrangement B may be supported.

In connection with each shade or curtain B, two sets of shade supporting fixtures 20 are provided, which are practically similar in construction. For this reason, but one set of fixtures will be described in detail.

Referring to a set of fixtures 20, as illustrated in the drawing, the same preferably includes the sash attaching bracket 21; supporting arm 22 for direct attachment to the bracket or socket member 21; intermediate adjustable supporting member 23; and adjustable member 24 for directly supporting the curtain or shade fixture B.

The sash attaching socket member 21 is preferably formed of sheet metal, including a plate portion 30 for direct attachment against the outer surface of the frame portion of a sash 10; this plate 30 having apertures 32 therein for receiving attaching elements (not shown). Lateral guide flanges 33 are vertically provided at the side edges of the attaching plate 30 in spaced relation therewith. At their lower ends, these guide flanges 33 are crimped into abutting relation with the plate 30, in order to limit the positioning of certain details of the supporting arm 22, as will be subsequently described. The vertical grooves 35ª, provided intermediate the flanges 33 and the plate 30, are open at the top of the socket member 21 to slidably receive the plate portion 35 of the supporting arm 20. The arm portion 36 of the support 22 extends outwardly from the front surface of the plate portion 35, substantially at right angles to the plane of the plate 35, so that when the plate portion 35 is disposed within the socket member 21,

said arm portion 36 is horizontally positioned. In order to prevent accidental detachment of the plate 35 from the socket member 21, it is contemplated to provide a lug 38 extending forwardly of the plane or front surface of the attaching plate 30, which is adapted for fitting within a socket 39 depressed inwardly of the plane of the plate portion 35 of the supporting arm 22. The longitudinal edge portions of the arm 36 are overturned, providing flanges 43 in spaced relation at one side of the arm 36, which provide longitudinal passageways 44 opening at the free end of the arm portion 36. At the free end of the arm portion 36, a vertically upstanding lug 45 is provided, which extends into the passageway 44 or into the plane of said passageway, and is adapted for adjustable association with the intermediate supporting member 23, as will be subsequently described.

The intermediate supporting member 23 is substantially right angled in formation, including a ratchet bar portion 50, and a supporting arm portion 51, which are relatively disposed substantially at right angles to each other. The ratchet bar portion 50 is provided with a series of spaced notches 52 in the lower edge thereof which are adapted for receiving the upstanding lug 45 of the supporting arm 22, whereby the bar portion 50 may be adjusted within the passageways 44 provided by the flanges 43, substantially as is illustrated in the drawing. This permits of the lateral extension of the socket or supporting portion 51 forwardly of the jamb 13 of a window casing, and provides an effective positioning of the supporting member 23 against liability of accidental displacement, as the free end of the ratchet portion 50 engages upwardly within the passageway 44, so that the weight of said supporting member 23 normally holds the same in firm engagement with the locking lug or barb 45. The socket portion 51 is altogether analogous to the construction of the arm portion 46, having overturned flanges 55 in spaced relation therewith, to provide the horizontal passageways 56 for slidably receiving the ratchet portion 57 of the shade or curtain supporting member 24. The free end of the socket portion 51 has an upstanding lug 58, which extends upwardly of the lower passageway 56, and is adapted for engagement within the notches 59 at the lower edge of the shade support member 24.

The shade support member 24, in addition to the ratchet arm 57, which is slidable in the member 23, also includes the arm 60 which extends outwardly at right angles to the slidable portion 57, and is provided with suitable openings or recesses 62 in the free end thereof, to receive the end of a curtain or shade roller in the well known manner.

The sets of fixtures 20 are attached at each side of the window sash 10, so that the adjustable parts 23 and 24 are extensibly positioned forwardly of the jambs 13, substantially as is illustrated in Figure 2 of the drawing. In this position, the curtain roller of the shade apparatus B may have the ends thereof attached in the openings or recesses 62 provided by the shade supporting members 24; the sets of fixtures of course, having been adjusted by positioning of the members 23 and 24, so that the same conform to the length of the curtain roller and the distance which the axis of the same is to be spaced with respect to the plane in which the window casing lies. As is indicated in Figure 2 of the drawing, in dotted lines, a relatively narrow shade or curtain may be used, the ends of the roller of which may be carried by the ends of the supporting arms 22 of the fixtures 20; said ends of the supporting arms 22 being suitably apertured, as at 66, to receive the roller in such manner. This permits of a width of curtain substantially equal to the width of the window or sash carrying the same, as is obvious.

From the foregoing description of this invention, it can readily be seen that an improved shade supporting structure has been provided, the various parts of which cooperate in neat and novel manner to effectively support a shade device, the various parts of the fixtures of said construction being extensible to conform to various shades, and the desired placing of the same in relation to the sash or casing features of a window construction.

Various changes in the shape, size, and arrangement of parts may be made to the form of invention herein shown or described, without departing from the spirit of this invention or the scope of the claims.

I claim:

1. In a shade supporting structure for attachment to a window casing sash the combination of a socket member for attachment to the window sash including a plate body having lateral flanges extending over the front side of the body, said flanges at their lower ends being crimped upon the body of the plate to close an end of passageways along said flanges, the passageways between the flanges and the plate body being open at the opposite end of the flanges, said socket member being adapted for attachment to the upper end of a sash with the passageways of said flanges vertically disposed and opening upwardly, a supporting arm including a plate for sliding in the passageways of the socket member above mentioned and also including an arm extending from the plate in right angled relation so as to be positioned in right angled relation to the plane of the sash, said supporting arm including overturned flanges at the upper and lower edges

thereof facing towards the adjacent side of the window casing in which the sash is mounted, said flanges providing passageways therealong which are open at the forward end of the arm, and the said arm at the front thereof at the lower passageway having an inwardly extending locking lug, an intermediate supporting member of right angled formation including a ratchet arm notched at the lower edges thereof for adjustable disposition in the passageways of the arm portion of the supporting arm above mentioned so that the locking lug of said supporting arm may be disposed in the notches of the ratchet portion to hold the latter in definite relation, said intermediate supporting member also including a supporting arm in right angled relation from its ratchet portion adapted to extend outwardly along the front face of the window casing, and said last mentioned arm portion having top and bottom flanges extending therealong facing the adjacent side of the window casing and providing passageways along said arm which are open at the outer end of said arm, and said last mentioned arm providing a locking lug extending across the lower passageway at the free end of the arm, and a shade supporting member of right angled formation including a ratchet portion having the lower edges thereof notched, the ratchet portion last mentioned being adapted for sliding in the arm portion of the intermediate supporting member, and the shade supporting member having an outstanding arm in right angled relation with respect to its ratchet portion.

2. In a shade supporting fixture, for a window casing sash a member for attachment to the window sash providing vertical passageways therein closed at their lower ends, said member having a locking lug outstanding from the plane thereof, a supporting arm including a plate for slidable disposition in the passageways of the member and having a socket for receiving said locking lug and including an arm portion extending outwardly from the plate portion providing a passageway open from the free end of said arm portion, said arm portion having a lock lug at the free end thereof extending into the passageway of said arm portion, an intermediate supporting member right angled in formation including a ratchet portion notched at the lower edge thereof for adjustably receiving the locking lug of said supporting arm and a portion at right angles to the ratchet portion providing a passageway opening from the free end thereof and having a locking lug extending into the plane of said passageway, and a shade supporting member right angled in formation including a ratchet portion having notches upwardly in the lower edge thereof for selectively receiving the locking lug of said intermediate supporting member, said shade supporting member having an outstanding arm provided with an opening therein, said intermediate portion adapted to have the portion thereof provided with a passageway extending laterally in front of the window casing, so that the same may receive the shade supporting member in adjustable relation forwardly of the window casing.

WILLIAM A. BILES.