Nov. 4, 1941. A. E. DAVIS 2,261,142

WINDOW SCREEN AND SUPPORT THEREFOR

Filed Feb. 24, 1941

Fig. 1.

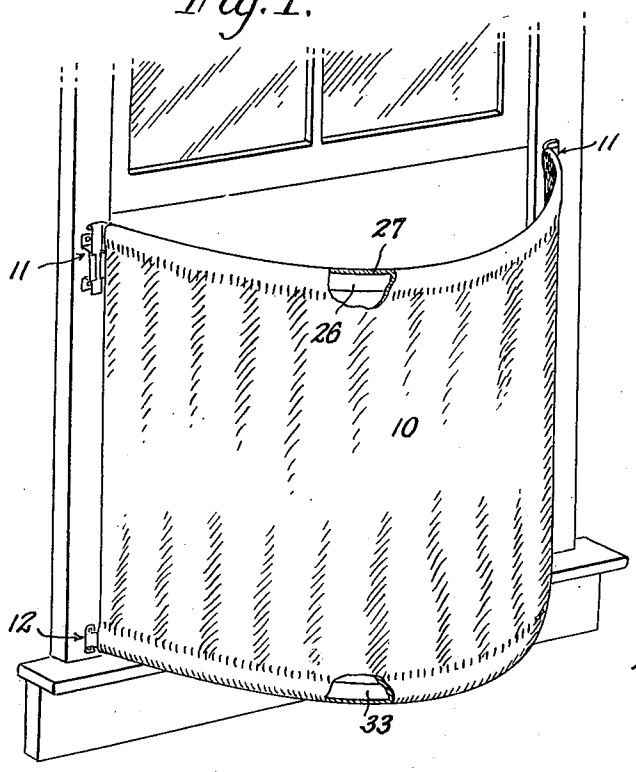


Fig. 2.

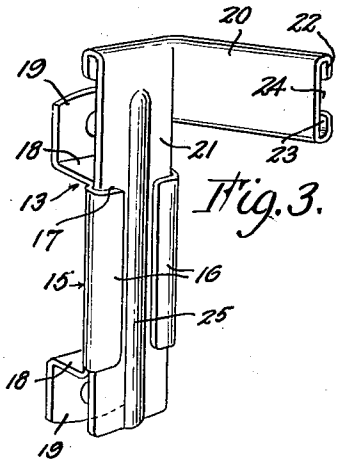
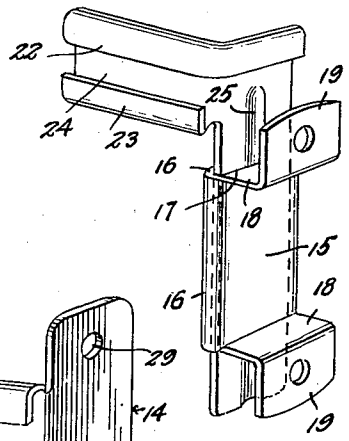


Fig. 3.

Fig. 4.



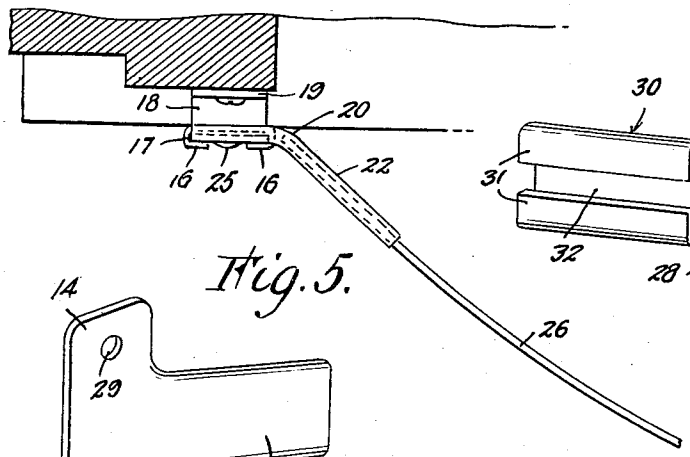


Fig. 5.

Fig. 6.

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WINDOW SCREEN AND SUPPORT THEREFOR

Albert E. Davis, New York, N. Y.

Application February 24, 1941, Serial No. 380,247

5 Claims. (Cl. 156—14)

This invention relates to screens of the type which include vertically spaced top and bottom straps extending inwardly in bowed formation on the inside of the window and by means of which a flexible panel is supported to provide a shield against direct drafts by deflecting upwardly and downwardly the air entering through the open window and the invention is more particularly directed to novel means for supporting the flexible panel, the same being an improvement on the invention set forth in my co-pending application, Serial No. 357,509, filed September 20, 1940.

It has been found that the flexible panels in this type of screen vary slightly in height especially after washing so that the same in many instances do not fit the fixed spacing of the upper and lower straps on which they are supported. In order to overcome this objection and to accommodate limited variations in the height of the flexible panel, the present invention provides means for supporting the top and bottom straps which permit of vertical adjustment with relation to each other after the panel has been applied thereto.

The invention more particularly provides bracket means adapted to be affixed to the window frame at the opposite sides thereof and which include sockets in which the ends of the normally straight top and bottom straps are received for disposing the straps in tensioned bowed formation extending inwardly from the window and which sockets are relatively adjustable for varying the vertical spacing of the top and bottom straps and when in adjusted relation the tension of the bowed strap on the adjusted sockets maintains the same in fixed position and the upper and lower straps in fixed spaced relation.

With the foregoing and other objects in view, reference is now made to the following specification and accompanying drawing in which there is illustrated the preferred form of the invention.

In the drawing:

Fig. 1 is a perspective view of a screen constructed in accordance with the invention and illustrating the same applied to a window.

Fig. 2 is an enlarged fragmentary plan view of the adjustable supporting means for the panel and illustrating one side of the window frame in section.

Fig. 3 is an enlarged perspective view of one of the adjustable strap supporting brackets.

Fig. 4 is a similar view thereof viewed from the opposite sides.

Fig. 5 is a perspective view of one of the fixed strap supporting brackets.

Fig. 6 is a perspective view of the fixed bracket as viewed from the opposite side.

Referring to the drawing by characters of reference, the screen includes a panel 10 and upper and lower supporting means 11 and 12 for mounting the panel in bowed formation extending inwardly from the window beyond the sill thereof for deflecting upwardly and downwardly the air entering therethrough. The supporting means 11 and 12 include pairs of brackets 13 and 14 adapted to be secured in vertically spaced relation with the brackets of each pair disposed respectively on opposite sides of the window frame.

In the embodiment illustrated, the brackets 13 of the upper supporting means each consists of an intermediate portion 15 having inwardly directed flanges 16 at the opposite vertical edges thereof extending inwardly towards each other and spaced from the forward face of said portion to provide a vertical guideway 17 of rectangular cross sectional configuration.

The upper and lower ends 18 of the intermediate portion are offset rearwardly and are provided with angulated vertically aligned apertured terminals 19 for receiving screws or other means for fastening the same to the window frame. Each of the brackets 13 also includes an adjustable element 20 having a depending vertically disposed shank 21 of rectangular shape in cross sectional configuration to slidably engage in the guideway 17 for adjusting the element 20 vertically with reference to the lower supporting means 12. The element 20 is preferably formed integral with the shank 21 and extends outwardly at an angle to the upper portion of the inner side edge of the shank and is provided along its upper and lower edges with inturned flanges 22 and 23 spaced from the rear face thereof to provide a horizontally extending socket 24. The upper flange 22 is formed integral with and merges into a similar flange at the upper edge of the shank 21 to reenforce and strengthen the adjustable element. The shank 21 is also provided with a longitudinally extending forwardly offset strengthening rib 25 which extends between the confronting edges of the flanges 16.

The upper supporting means 11 further includes a resilient normally straight strap 26 which is reeved through a tunnel 27 suitably formed in the upper edge of the panel 10, such as by hemming and which strap has its opposite ends engaged in the sockets 24 of the oppositely disposed upper brackets 13 for supporting the upper portion of the panel 10 in bowed spanning formation extending inwardly from the window. When the strap 26 is engaged in the sockets 24 of the adjustable element 20, the inherent resiliency thereof exerts an outward tension on the element 20 to cant the shanks 21 in the guideways 17 to thereby effect a binding engagement therebetween. This binding action serves to retain the shanks 21 in any selected vertical adjustment with reference to the guideway and the strap 26

in adjusted vertical relation to the lower supporting means 12.

The brackets 14 of the lower supporting means 12 each includes a vertically extending base portion 28 having apertures 29 for receiving screws or equivalent fastening means for attaching the same to the window frame and a fixed projection 30 extending forwardly at an angle from the inner edge of the base portion 28. The projection 30 has inturned flanges 31 extending longitudinally of its upper and lower edges which are spaced from the inner face thereof to define therewith a fixed socket 32. The lower supporting means 12 also includes a resilient normally straight strap 33 which is reeved through a tunnel formed along the lower edge of the panel 10 and which strap has its opposite ends engaged in the sockets 32 of the fixed brackets 14 to support the lower portion of the panel in bowed spanning formation extending inwardly from the window.

The panel 10 is thus supported in arcuate spanning relation to the window frame to form a shield against drafts from the window by deflecting the air upwardly and downwardly as it enters the window. The panel is preferably made of flexible translucent material so as to admit light while obscuring vision into the room from the outside. By making provision for adjusting one of the supporting means vertically with reference to the other, the supporting means thus compensates for limited variations in the height of the panel, particularly after the same has been washed.

What is claimed is:

1. An inside screen for windows including a flexible panel and means for supporting the same in bowed condition extending inwardly from the window, said means including normally straight top and bottom straps to which the upper and lower edges of the panel are attached, a pair of upper and lower brackets adapted to be secured in vertically spaced relation with the brackets of each pair disposed respectively on opposite sides of the window, said pair of upper brackets having vertically extending rectangular guideways, angularly disposed fixed socket members carried by said pair of lower brackets and in which are received the ends of the lower strap for disposing the same in bowed formation, angularly disposed movable socket members having rectangular shanks mounted for vertical movement in the guideways of the upper pair of brackets and in which sockets are received the ends of the upper strap for disposing the same in tensioned bowed formation, said movable socket members being adjustable in said guideways for varying the relative spacing of the straps so as to accommodate panels of varying heights and said movable socket members being retained in fixed adjusted position by the tension of the upper bowed strap producing a canting of said shanks in the guideways to effect a binding engagement therewith.

2. An inside screen for windows including a flexible panel and means for supporting the same in bowed condition extending inwardly from the window, said means including normally straight top and bottom straps to which the upper and lower edges of the panel are attached, pairs of brackets adapted to be secured in vertically spaced relation with the brackets of each pair disposed respectively on opposite sides of the window, one of said pairs of brackets having vertically extending rectangular guideways, angularly disposed fixed socket members carried by the other of said pairs of brackets and in which are received the ends of one of said straps for disposing the same in bowed formation, angularly disposed movable socket members having rectangular shanks mounted for vertical movement in said guideways and in which sockets are received the ends of the other of said straps for disposing said strap in tensioned bowed formation, said movable socket members being adjustable in said guideways for varying the relative vertical spacing of the straps so as to accommodate panels of varying heights, and said movable socket members being retained in fixed adjusted position by the tension of the bowed strap producing a canting of said shanks in the guideways to effect a binding engagement therewith.

3. An inside screen for windows including a panel and means for supporting the same in bowed condition extending inwardly from the window, said means including normally straight top and bottom straps to which the upper and lower edges of the panel are attached, pairs of brackets adapted to be secured in vertically spaced relation with the brackets of each pair disposed respectively on opposite sides of the window, fixed and movable socket members carried respectively by said pairs of brackets and in which the ends of the straps are received for disposing the straps in tensioned bowed formation, said movable socket members being adjustable for varying the relative vertical spacing of the straps so as to accommodate panels of varying heights and said movable socket members being retained in fixed adjusted position by the tension exerted thereon by the bowed strap.

4. An inside screen for windows including a panel and means for supporting the same in bowed condition extending inwardly from the window, said means including normally straight top and bottom straps to which the upper and lower edges of the panel are attached, brackets adapted to be secured in relative fixed relation adjacent the opposite sides of the window, and angularly disposed fixed and movable socket members carried by said brackets and in which are received the ends of the straps for disposing the straps in tensioned bowed formation, said movable socket members being adjustable for varying the relative vertical spacing of the straps so as to accommodate panels of varying heights and said movable socket members being retained in fixed adjusted position by the tension exerted thereon by the bowed strap.

5. An inside screen for windows including a panel and means for supporting the same comprising elements secured in fixed relative position adjacent the opposite sides of the window, upper and lower means of connection between said panel and elements detachably associating the panel therewith and disposing the panel in inwardly directed position extending beyond the window sill for vertically deflecting the air entering the window and for obstructing the view into the room, one of said means of connection being relatively adjustable vertically for varying the vertical spacing therebetween so as to accommodate panels of varying heights.

ALBERT E. DAVIS.