

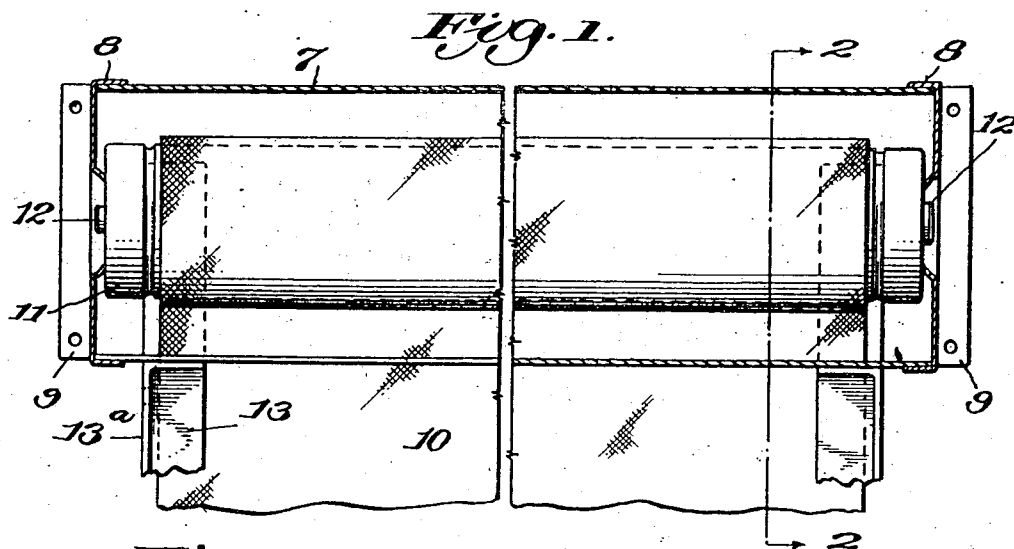
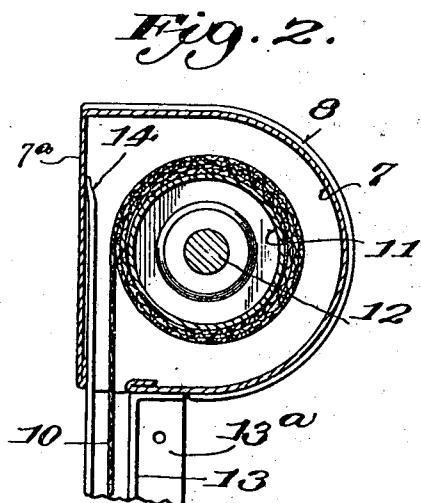
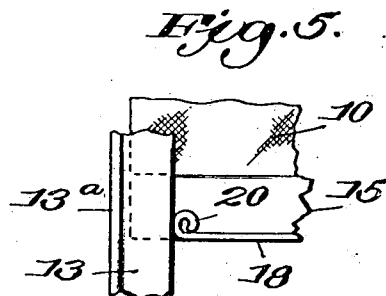
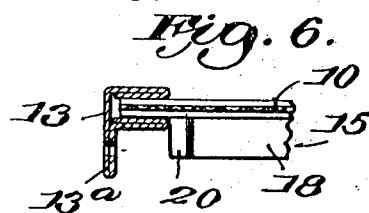
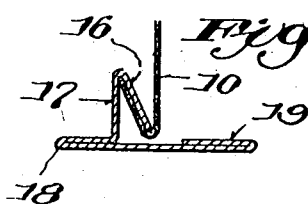
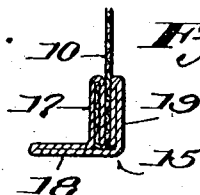
Feb. 11, 1930.

H. W. VALENTINE

1,746,723

WINDOW SCREEN, CURTAIN, AND THE LIKE

Original Filed Aug. 6, 1927



Inventor  
HARRY W. VALENTINE,

By *Harry Q. Schroder*

Attorney

## UNITED STATES PATENT OFFICE

HARRY W. VALENTINE, OF BERKELEY, CALIFORNIA, ASSIGNOR TO DISAPPEARING  
SCREEN & SHADE COMPANY, INC., OF BERKELEY, CALIFORNIA

## WINDOW SCREEN, CURTAIN, AND THE LIKE

Original application filed August 6, 1927, Serial No. 211,072. Divided and this application filed May 15,  
1928. Serial No. 277,989.

This invention relates to screens, curtains, and the like and particularly to that class of such flexible materials which are wound on spring rollers and applied to windows or similar openings.

The main object of the present invention is to provide a cross bar which will grip the end of the flexible material to hold it firmly at all points; which will have means to facilitate manual movement thereof; which will cooperate with guides to confine the material to a definite plane of movement when it is being wound on and unwound from its roller; and which will be strong and durable and will cooperate with the sill of the window or other opening to prevent the passage therebetween of flies and dirt.

The present application is a division of my co-pending application, Serial No. 211,072, filed August 6, 1927.

The invention will be found fully illustrated in the accompanying drawings, wherein, for purposes of illustration, the improved cross bar and guide construction has been applied to a rolling window screen.

Fig. 1 is a longitudinal section through the screen and roller housing, showing the roller in mounted position in front elevation.

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1.

Fig. 3 is a detailed cross sectional view in partly folded condition of that part of the cross-guard which forms a gripping and reinforcing band for the screen.

Fig. 4 is a detailed cross section of the band shown in Fig. 3, completely folded.

Fig. 5 is a fragmentary front elevation of the screen, guard, and guide.

Fig. 6 is a plan view of Fig. 5, but with the screen and guide shown in section.

Referring now to the drawings in detail, 7 indicates a screen and roller housing having a flat back wall 7<sup>a</sup> and end caps 8. The end caps fit over the curved end portions of the housing and are provided with flanges 9 for securing the device in position wherever desired. The back wall 7<sup>a</sup> is spaced at its lower edge from the lower portion of the housing (see Fig. 2) to provide a passageway for the screen 10, which screen is attached to a spring

roller 11 in any suitable manner. The roller 11 is mounted upon a spindle 12 which in turn is carried by the end caps 8 of the housing. The specific method of mounting and details of the roller construction are disclosed and claimed in said parent application, Serial No. 211,072.

Cooperating with the roller housing 7 is a pair of channeled guides 13, each guide having a projecting flange 13<sup>a</sup> thereon for fastening it to a window stile or the like, and having a portion on one side of its upper end which may extend inside the back wall 7<sup>a</sup> to a height substantially level with the top of the roller, as at 14 (see Fig. 2). This extension eliminates any contact between the screen and destructive rough edges during its passage from the housing to the guide and vice versa. In this connection it is noted that there are no exposed sharp edges anywhere on the guides, as can be seen from the manner of folding a single piece of starting material into the final shape disclosed in Fig. 6.

One of the main features of this invention lies in the formation of the cross guard or bar which acts as a finish for the lower edge of the screen and causes the screen to move exactly in the plane of the channeled guides. This cross guard, indicated generally by numeral 15, comprises a single strip of material of substantially the same length as the width of the screen and as the distance between the guides, folded in such manner as to form a screen gripping means, a finger flange, and abutments for slidably cooperating with the guides. This procedure is made clear in Figs. 3 to 6, where it is seen that the lower end of the screen is folded over a portion 16 of the strip, after which portions 16 and 17 are pinched together to hold the screen fabric securely and portion 19 is bent upwardly to further clamp the screen in place and to strengthen the structure. It will be seen that there can be no tendency for the screen to slip out of the guard at any point, and that no sharp or rough edges are exposed to the outside of the device. A finger flange 18 projecting outwardly from the guard provides means for manually grasping the guard to raise and lower the screen. This flange ex-

tends from guide to guide in order to prevent flies and dirt from passing between itself and the window sill or the like when in its lowermost position. Any suitable locks or catches (not shown) may be provided for  
 5 holding the flange in said lowermost position but of course numerous higher positions may be given to it because of the well known action of a spring roller.

At each end thereof, the finger flange 18 is turned or rolled back upon itself to provide an abutment, for instance as shown at 20 in  
 10 Figs. 5 and 6, which slidably cooperates with the channeled guides to prevent any transverse motion of the cross guard. The guard and screen are thus forced to move up and  
 15 down the guides with their edges in accurate alignment with the lateral edges of that part of the screen which is already wound upon  
 20 the roller.

Having described my invention, the details of construction and combination of parts of which may be varied with the scope of the appended claims, what I claim is:

25 1. A cross piece for screens comprising a single strip of metal consisting of a downwardly opening U-shaped member having hooking, interlocking engagement with a screen, a flange portion bent at right angles  
 30 to said U-shaped member at the lower end of one of the sides of the U, said flange portion being bent back upon itself, and a member connected to the bent back portion of said flange portion and bent at right angles there-  
 35 to on the same side of said flange portion as said U-shaped member and on the side of said U-shaped member opposite said flange portion, said last named member being bent back upon itself at its middle point toward  
 40 said U-shaped member, the bent portion of said last named member bearing against a portion of the screen between said bent portion and said U-shaped member to grip the screen therebetween.

45 2. A cross piece for screens comprising a single strip consisting of a downwardly opening U-shaped member having hooking interlocking engagement with a screen, one of the legs of said U-shaped member being extended  
 50 and being bent at an angle away from the opening in said U-shaped member, then bent back upon itself across the opening in the U-shaped member, then bent parallel to said U-shaped member, and then bent back upon  
 55 itself at its middle point in the direction of said U-shaped member, the portion beyond the last bend bearing against a portion of the screen between said portion and the U-shaped member to grip the screen therebetween.

30 3. A device of the character described comprising a closure bar for attachment to the free end of a roller screen, said closure bar having an inwardly extending flange the ends  
 65 of which are bent upwardly to contact with the sides of a window opening.

4. A device of the character described comprising a closure bar for attachment to the free end of a roller screen and composed of two sheet metal strips having inwardly extending flanges, one of said flanges being  
 70 crimped around the other of the flanges, the ends of certain of the flanges being bent upwardly to form guide members.

5. A device of the character described comprising a closure bar for attachment to the free end of a screen composed of a flanged  
 75 strip having a base for attachment to a window stile, a second flanged strip having its base super-imposed upon the base of the first-named strip and guide members on the ends  
 80 of one of the strips for contacting with the guides of a window opening.

In testimony whereof, I have hereunto set my signature.

HARRY W. VALENTINE. 85

90

95

100

105

110

115

120

125

130