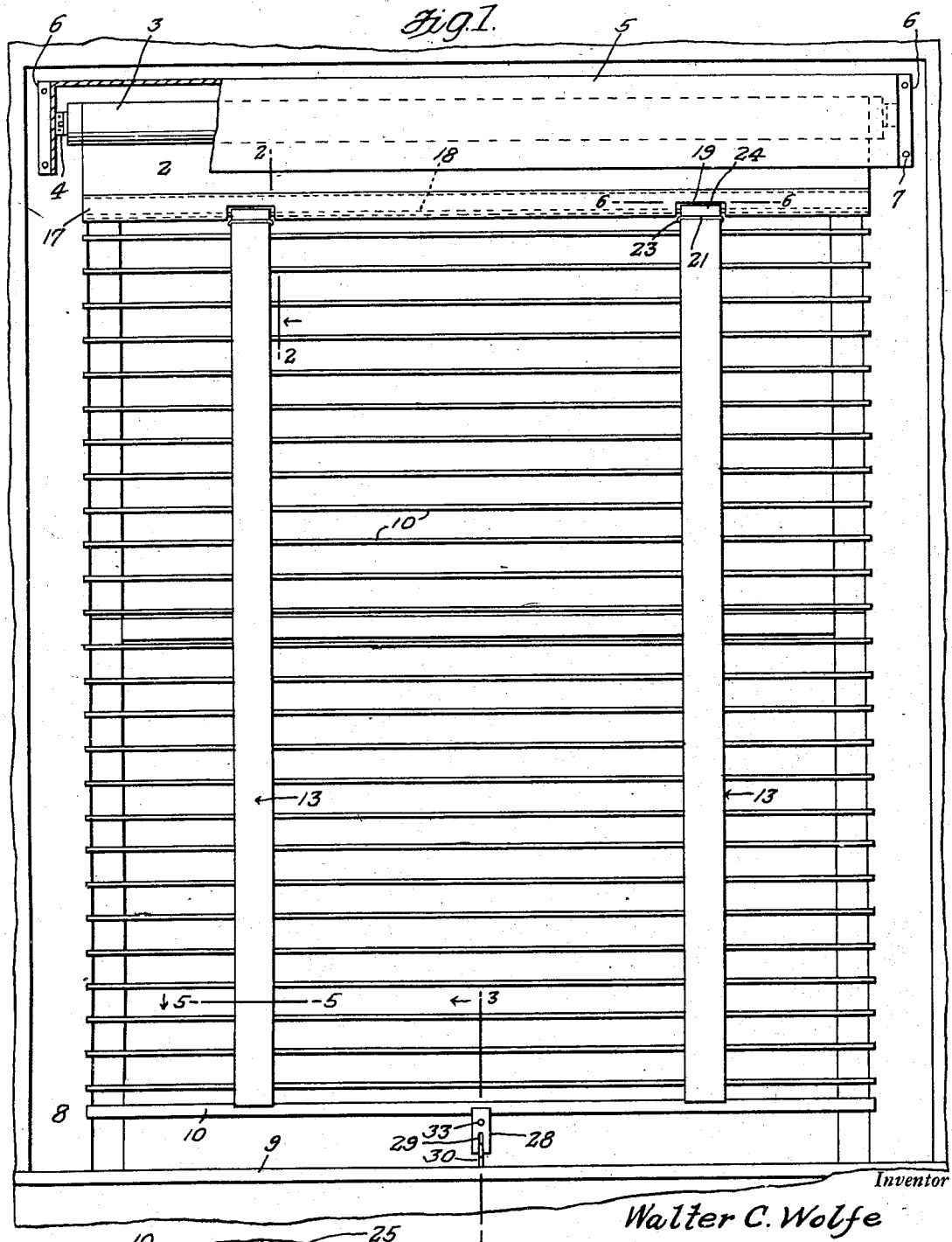
Oct. 6, 1942. W. C. WOLFE 2,297,996

VENETIAN BLIND

Filed Nov. 22, 1941 2 Sheets-Sheet 1

Fig. 1.



Inventor

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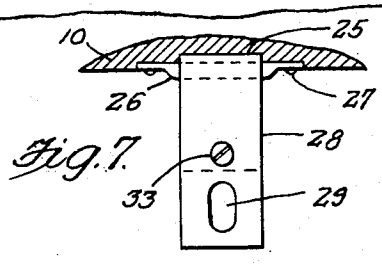


Fig. 7.

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VENETIAN BLIND

Filed Nov. 22, 1941 2 Sheets-Sheet 2

Fig. 2.

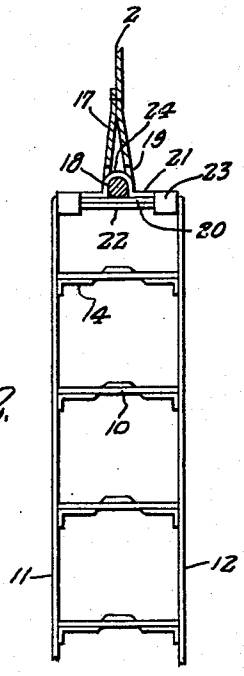


Fig. 5.

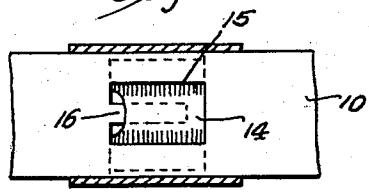


Fig. 6.

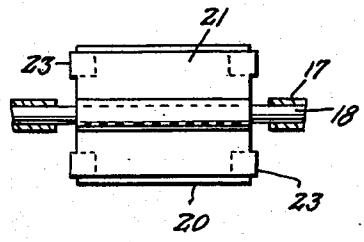


Fig. 3.

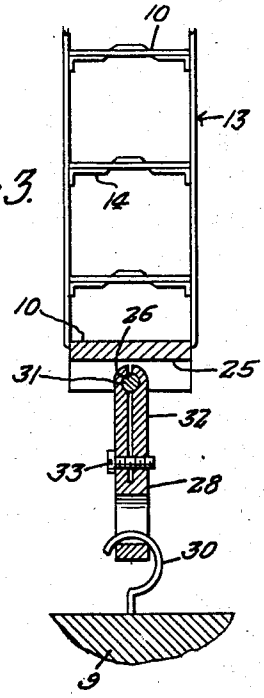
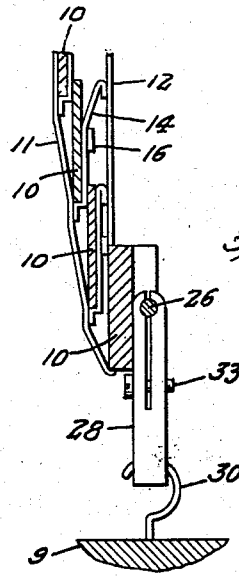


Fig. 4.



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2,297,996

UNITED STATES PATENT OFFICE

2,297,996

VENETIAN BLIND

Walter C. Wolfe, Albuquerque, N. Mex., assignor of forty-five per cent to Francis S. Bowyer, Albuquerque, N. Mex.

Application November 22, 1941, Serial No. 420,135

4 Claims. (Cl. 156—17)

My invention relates to improvements in Venetian blinds designed with the particular objects in view of providing a simply constructed device of this character which is easy to operate without cords and other tilting devices, may be concealed from view when not in use, and may be pre-set so that when fully lowered the slats will be tilted at any desired angle to admit light, or closed, so as to prevent light rays from passing through the blind.

Other and subordinate objects are also comprehended by my invention, all of which, together with the precise nature of my improvements, will be readily understood when the succeeding description and claims are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a view in front elevation of a Venetian blind embodying my improvements,

Figure 2 is a fragmentary view in vertical section taken on the line 2—2 of Figure 1 and drawn to an enlarged scale,

Figure 3 is a similar view taken on line 3—3 of Figure 1 and drawn to an enlarged scale,

Figure 4 is a fragmentary view in vertical section showing the blind fully closed,

Figure 5 is a fragmentary view in horizontal section taken on the line 5—5 of Figure 1 and drawn to an enlarged scale,

Figure 6 is a similar view taken on the line 6—6 of Figure 1, and

Figure 7 is a view partly in front elevation and partly in longitudinal section illustrating the counterweight and the means for attaching the same to the lowermost slat.

Reference being had to the drawings by numerals, according to my invention a slat unit 1 is attached at its upper end, by means presently described, to a flexible sheet 2 which, in turn, is suitably attached to a roller 3 of the usual window shade type and which is mounted at its ends in brackets 4 on the ends of an open bottomed cornice 5 secured by end flanges 6 thereon and screws 7 to the top of a window frame 8 to extend along said top. The sheet 2 is designed to suspend the slat unit 1 from the roller 3 when said unit is lowered and with the lower end of the unit within a short distance from the stool cap 9 of the window frame. As will presently more clearly appear, the slat unit 1 and sheet 2 may be rolled up on the roller 3 when the blind is not in use to completely conceal the same in the cornice 5.

The slat unit 1 comprises the usual slats 10 extending crosswise of the unit between the front and rear stretches 11, 12 of a pair of side tapes 13 looped above the top slat 10 with said side stretches 11, 12 adapted to hang pendent. The slats 10, with the exception of the lowermost one, are supported by fabric cross-webs 14 extending between the side stretches 11, 12 of the tapes 13 and connected to said webs to tilt about the longitudinal axes thereof so as to open at different angles and close in overlapping relation under manipulation of the stretches 11, 12 in the usual manner. For connecting the slats 10 to said cross-webs 14, each slat 10 is provided with a pair of longitudinally extending slots 15 over its supporting webs 14 and with a pair of tongues 16 projecting into said slots 15 in the axis of the slat and extending under the webs 14 from the outer side edges of the latter. By this arrangement, under raising of one stretch 11, 12, the slats 10 will be tilted in the usual manner as will be clear. The stretches 11, 12 of the tapes 13 are attached in any suitable manner to the side edges of the lowermost slat 10 which is substantially thicker than the others. As will be understood, the lowermost slat 10 is tilted in the same manner as the other slats.

For suspending the described slat unit from the sheet 2, the latter is provided with a bottom hem 17 which suspends a rod 18 therein. A pair of edge notches 19 are formed in the hem 17 to provide for connection of the loops 20 of the tapes 13 to said rod. Each loop 20 extends between a pair of opposed metal clamping plates 21, 22, one of which is arranged within the loops and the other outside the same, the plates of each pair being clamped together by corner lugs 23 on one plate bent over the edges of the other plate and flat against the same. The outside plate 21 of each pair is crimped to form a hinge barrel 24 which straddles the rod 18 and is disposed in one of the notches 19. Thus, the pairs of plates 21, 22 are suspended from the rod 18 for rocking movement thereon so that the stretches 11, 12 of the tapes 13 may be raised and lowered to tilt the slats 10 at the desired angle.

Means are provided for pre-setting the slats 10 at any desired angle and maintaining the same at the selected angle when the slat unit 1 is lowered, and as follows:

The lowermost slat 10 is provided in its bottom face with a central recess 25 and a longitudinally extending pin 26 spanning the recess with its ends suitably fixed, as at 27, to the bottom face of said slat.

An elongated rectangular, plate-like counterweight **28** is provided for suspension by its upper end from said pin **26** in a vertical plane and for coupling by means of an aperture **29** in its lower end to an anchor hook **30** upstanding from the stool cap **9**. The counterweight **28** is split inwardly from its upper end in the median plane of the same and grooved, as at **31**, along its upper ends to provide a pair of opposed clamping jaws **32** for gripping the pin **26**. A set screw **33** threaded through said jaws **32** provides for drawing the same together into clamping relation to the pin **26**.

As will now be seen, when the slat unit **1** is lowered, manipulation of the side stretches **11**, **12** will result in the slats **10** being pre-set in any desired angle and said slats may be maintained at the selected angle by attaching the counterweight **28** to the pin **26** to depend therefrom in a vertical plane and further by attaching the counterweight **26** to the hook **30**. Also, the counterweight **28** may be detached from the hook **30** to function in its capacity as a counterweight hanging pendent from the lowermost slat **10** and thus maintain the slats **10** in the selected angular position while the slat unit **1** is raised for some distance from the stool cap **9**. As will be clear, and as best shown in Figure 4, the slats **10** may be set into closing position and maintained closed, or, and as shown in Figure 2 and 3, set into fully open position and maintained fully open all by virtue of the described devices.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly, the invention, as described, is susceptible of modification without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the subjoined claims.

What I claim is:

1. In a blind of the class described, a plurality of horizontal slats, a pair of side tapes looped over the upper slat and including side stretches depending upon opposite sides of said slats, means to suspend the loops of said tapes at the top of a window casing comprising clamping plates for said loops pivoted for rocking movement whereby said stretches may be manipulated vertically, means connecting said slats to said stretches whereby said slats may be variably tilted under such manipulation of said stretches, and means to attach the lowermost slat to the stool cap of said window casing to maintain said lowermost slat in tilted position and thereby maintain the said side stretches in manipulated position and the remaining slats in tilted position.

2. In a blind of the class described, a plurality of horizontal slats, a pair of side tapes looped over the upper slat and including side stretches depending upon opposite sides of said slats, means to suspend the loops of said tapes at the top of a window casing comprising clamping plates for said loops pivoted for rocking movement whereby said stretches may be manipulated vertically, means connecting said slats to said stretches whereby said slats may be variably tilted under such manipulation of said stretches, and means to attach the lowermost slat to the stool cap of said window casing to maintain said lowermost slat in tilted position and thereby maintain the said side stretches in manipulated position and the remaining slats in tilted position, said first-mentioned means comprising a roller, a sheet wound upon said roller and having a bottom hem, and a rod in said hem upon which the clamping plates are swingably mounted.

3. In a blind of the class described, a plurality of horizontal slats, a pair of side tapes looped over the upper slat and including side stretches depending upon opposite sides of said slats, means to suspend the loops of said tapes at the top of a window casing comprising clamping plates for said loops pivoted for rocking movement whereby said stretches may be manipulated vertically, means connecting said slats to said stretches whereby said slats may be variably tilted under such manipulation of said stretches, and means to attach the lowermost slat to the stool cap of said window casing to maintain said lowermost slat in tilted position and thereby maintain the said side stretches in manipulated position and the remaining slats in tilted position, said last means comprising a plate-like counterweight, and means to attach said counterweight to said lowermost slat to hang therefrom in a vertical plane in any tilted position of said lowermost slat.

4. In a blind of the class described, a plurality of horizontal slats, a pair of side tapes looped over the upper slat and including side stretches depending upon opposite sides of said slats, means to suspend the loops of said tapes at the top of a window casing comprising clamping plates for said loops pivoted for rocking movement whereby said stretches may be manipulated vertically, means connecting said slats to said stretches whereby said slats may be variably tilted under such manipulation of said stretches, and means to attach the lowermost slat to the stool cap of said window casing to maintain said lowermost slat in tilted position and thereby maintain the said side stretches in manipulated position and the remaining slats in tilted position, said last means comprising a plate-like counterweight, and means to attach said counterweight to said lowermost slat to hang therefrom in a vertical plane in any tilted position of said lowermost slat, and a hook upstanding from said stool cap, said counterweight having an aperture therein for accommodating said hook.

WALTER C. WOLFE.