Sept. 21, 1954 A. W. LOUCONY 2,689,607

VENETIAN BLIND FITTING

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Fig. 1

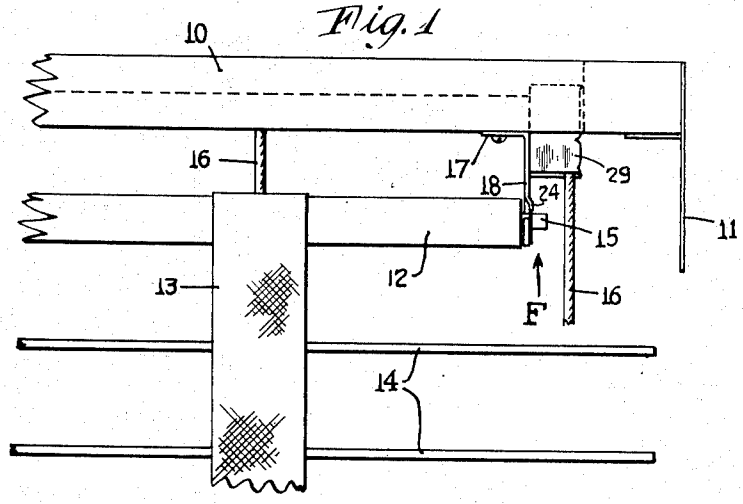


Fig. 2

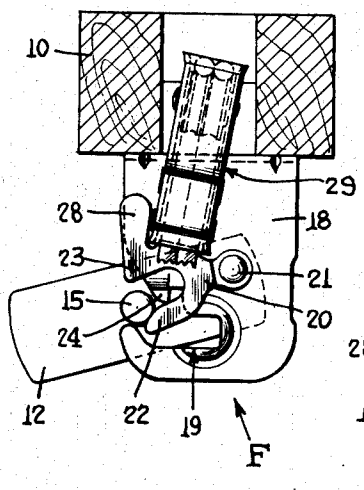


Fig. 3

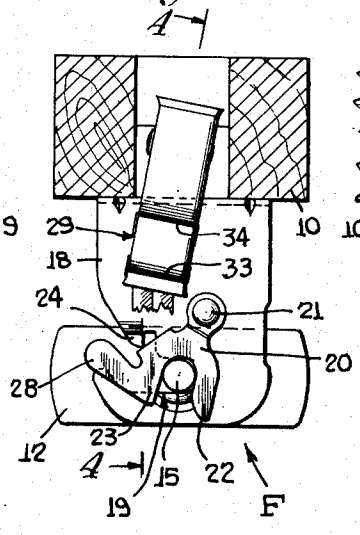
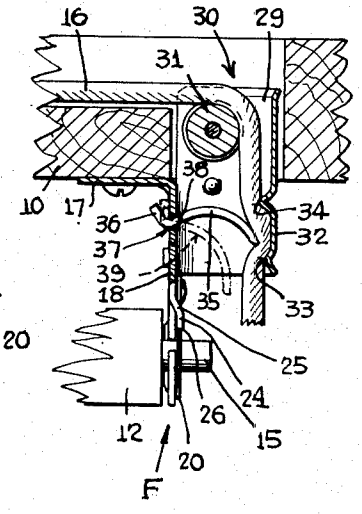


Fig. 4



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VENETIAN BLIND FITTING

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2 Claims. (Cl. 160—177)

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This invention relates to Venetian blinds, and more particularly to a unitary fitting for a blind combining in one unit a cord lock and a tilt-bar support.

An object of the invention is to provide an improved one-piece or unitary fitting for use in a Venetian blind which serves to support and effectively lock the tilt bar in place and also to lock the elevating cord in various adjusted positions, the said fitting being extremely simple and economical in construction.

Another object of the invention is to provide an improved fitting as characterized above, which is easy to operate and reliable in use at all times.

A further object of the invention is to provide an improved Venetian blind fitting according to the foregoing, which is compact and small in size.

Other features and advantages will hereinafter appear.

In the accompanying drawings:

Figure 1 is a fragmentary front elevational view of a Venetian blind having an improved one-piece fitting made in accordance with the present invention.

Fig. 2 is a side elevational view of the fitting shown in Fig. 1, the parts being in the positions they occupy prior to attachment of a tilt bar to the fitting.

Fig. 3 is a view like Fig. 2 but showing the parts in the positions they occupy after the tilt bar has been completely attached and is locked in place; and

Fig. 4 is a vertical sectional view taken on line 4—4 of Fig. 3, showing the elevating cords locked in adjusted positions.

In Fig. 1 a usual type of Venetian blind is shown, comprising a head rail 10 supported by a head bracket 11, and comprising a tilt bar 12 having a ladder tape 13 carrying slats 14. At one end the tilt bar 12 has the usual pivot pin 15 by which it is pivotally secured to the head rail 10.

In accordance with the present invention an improved and simplified unitary or one-piece fitting F is provided for pivotally carrying the tilt bar 12 under the head rail 10 and locking the tilt bar in place, and for locking the elevating cords 16 in various adjusted positions.

Referring to Figs. 1 and 4, the fitting F comprises a base plate 17 which is adapted to be secured to the underside of the head rail 10, as by the wood screws shown.

The base plate 17 has integral with it a vertical, depending plate 18 having in its lower portion a forwardly and upwardly extending slot 19

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adapted to receive the pivot pin 15 of the tilt bar 12.

I provide on the vertical plate 18 a novel, simple and advantageous locking means whereby after the tilt bar has been assembled to the fitting by inserting the pivot pin 15 in the slot 19, the tilt bar will be locked in place and prevented from being inadvertently dislodged. This improved locking means comprises a metal fork 20 which is preferably formed of resilient sheet metal, pivotally mounted on the vertical plate 18 by means of a rivet-type stud 21. The fork 20 has legs 22 and 23 which are arranged to swing with and extend on opposite sides of the pivot pin 15 when the latter is being inserted in or removed from the slot 19.

In Fig. 2 the fork 20 is shown in an upswung position wherein the pivot pin 15 of the tilt bar 12 is receivable between the legs 22 and 23 simultaneously with insertion of the pin in the slot 19. As the pivot pin 15 progresses in its travel into the slot 19 the fork 20 will swung counterclockwise and finally come to rest in the position shown in Fig. 3, corresponding to the fully inserted position of the pivot pin.

I provide a novel and simplified releasable locking means for maintaining the fork 20 in the position of Fig. 3, thereby to securely lock the pivot pin 15 in the slot 19 and retain the tilt bar assembly to the fitting F. This locking means comprises a lug 24 on the vertical plate 18, preferably lanced therefrom and offset from the plane of the plate as shown in Fig. 4, the lug 24 having a sloping surface 25 over which the leg 23 of the fork 20 rides during movement of the fork to locking position, and having a straight edge surface 26 adapted to engage a straight edge 27 on the leg 23 when the fork is locked in the position of Fig. 3.

For the purpose of conveniently releasing the fork 20 when it is desired to remove the tilt bar 12 from the fitting F, I provide a lateral extension 28 on the leg 23 of the fork, the said extension constituting a finger piece adapted to easily twist and shift the leg 23 away from the lug 24 so the leg can clear the latter. Thus, the fork 20 may be easily and quickly unlocked and the tilt bar 12 shifted forward away from the fitting F by first simply manipulating the finger piece 28.

I also provide on the plate 18 of the fitting F a novel, simplified and effective cord lock for holding the elevating cords 16 in various adjusted positions. On the plate 18 I mount a housing or a casing 29 shaped in the form of a U or

channel, and secured to the upper portion of the plate in a position wherein it extends above the base 17 of the fitting and into a recess 30 in the head rail 10. The casing 29 is shown as being open at the top and bottom, and carries direction-changing pulleys 31 over which the elevating cords 16 pass, the said cords extending downward through the casing and out of the bottom thereof. With the construction illustrated, it will be observed that a portion of the vertical plate 18 constitutes a wall of the casing 29, being located opposite the lower portion of the wall 32 of the casing.

For the purpose of effectively locking the elevating cords 16 in different adjusted positions, I form the wall 32 of the casing to provide a pair of vertically-spaced, horizontally-extending internal ribs or ridges 33 and 34, and I prefer to make the rib 33 of lesser height than the rib 34 to facilitate release of the cords after they are locked, as will later be brought out.

Within the casing 29 I provide a locking dog 35 having at one end a lug 36 extending through an aperture 37 in the wall 18 of the fitting, the dog 35 having shoulders 38 whereby a pivotal mounting is provided between the dog 35 and the wall 18 enabling the dog to move between the locking position shown in full lines in Fig. 4 and an unlocking position designated 39 and shown in dot-and-dash lines in this figure.

I have found that a cord lock as constructed in accordance with the foregoing is extremely economical to fabricate, since it has relatively few parts and since the parts and the assembly of the parts are very simple. Also I have found that such a cord lock is extremely effective and reliable in use since it not only effectively locks the elevating cords in the desired positions but also readily releases the cords in response to a downward pull on them, and in connection with this latter the making of the rib 33 less high than the rib 34 is significant, since it facilitates such release.

By the present invention I have therefore provided in a unitary fitting an extremely economical, reliable and effective cord lock, and also an equally advantageous support and lock for the tilt bar, in a Venetian blind.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

I claim:

1. In a Venetian blind having a tilt bar and a pivot pin therefor, and having a vertical plate provided with a forwardly extending, open-ended slot adapted to receive said pivot pin to enable the plate to pivotally support said bar, the improvement which comprises: a flexible arm pivotally mounted at one end on said plate for pivotal movement between a position removed from and providing free access of the pivot pin into said slot, to a position extending across and blocking said slot to lock the pivot pin therein; cooperable means on a side edge of said arm and on the plate for releasably positively locking the arm in position across the slot, said locking means including a lug rigid on the plate, having a sloping camming surface over which the arm rides when moving from pin-releasing to pin-locking position, and having an abutting shoulder surface engageable by said edge of the arm when in locking position to prevent unlocking movement of the arm; and an integral finger piece on the other end of said arm, extending substantially perpendicular to the arm for twisting the latter to move the edge laterally away from the plate to disengage the said side edge thereof from the abutting shoulder surface of the lug whereby the arm may be moved to releasing position.

2. The invention as defined in claim 1 in which there is a second arm secured to and spaced from the said flexible arm and extending substantially parallel thereto, said second arm extending across said slot when the flexible arm is in pin-releasing position and being engageable with the pin upon its insertion in the slot and movable with and ahead of the pin as the latter is advanced into the slot, said second arm causing the flexible arm to follow the pin during said insertion and to move to said pin-locking position.

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