

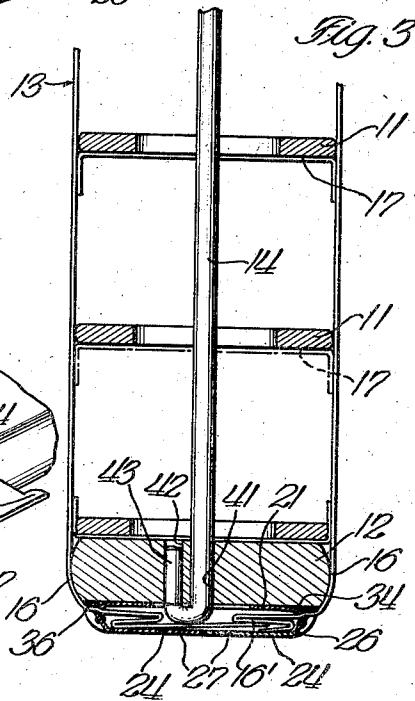
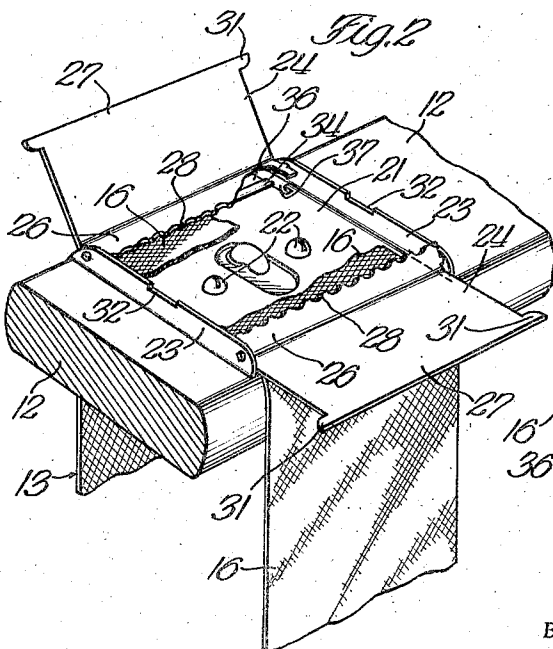
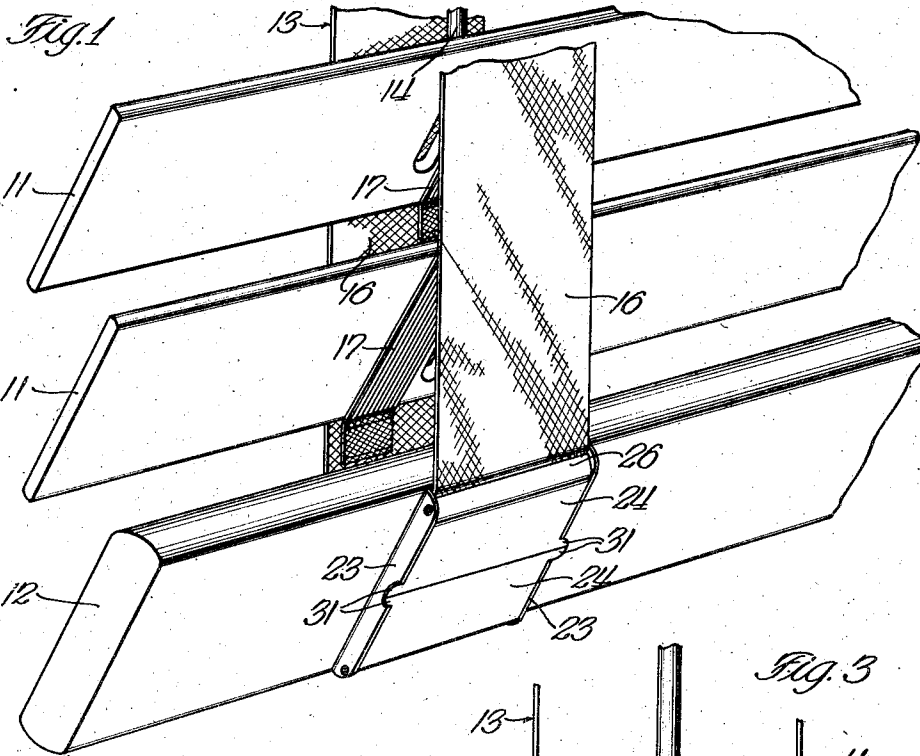
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H. R. HAASE

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VENETIAN BLIND AND FASTENER THEREFOR

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INVENTOR.
Harold R. Haase
BY *Louis Robertson*
ATTORNEY.

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VENETIAN BLIND AND FASTENER THERE-
FOR

Harold R. Haase, River Forest, Ill.

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2 Claims. (Cl. 156—17)

In the more common forms of Venetian blinds the slats are supported in properly spaced relation and tilted to the desired position by tilt tapes, also known as "ladder tapes" which extend down along the faces of the blind and are secured to the bottom rail. The blind is raised and lowered by raising cords which extend through the slats in a position to be hid by the tilt tapes and are usually likewise secured to the bottom rail. An object of the present invention is to secure the tilt tapes and the raising cord to the bottom rail in an inexpensive and convenient manner which will nevertheless have a neat appearance.

The ladder tape gets this name from the fact that the wide flat tapes extending along both the front and the back of the blind are connected together by cross pieces corresponding to the rungs of a ladder and on which the slats rest. These tapes have been secured to the bottom rail in a variety of ways in the past, probably the simplest of which is to carry each side tape around to the bottom of the bottom rail, at which point its end is doubled up and tacked to the rail. However, when the blind is tilted in one direction, the bottom of the bottom rail is exposed and the tacked ends do not present a particularly neat appearance. Furthermore, this does not render the blind easily adjustable since it can only be adjusted by removing the tacks and then the distance which the blind can be extended downwardly is likely to be very small because it is difficult to provide much extra length in the tilt tape at the folded-over end portion. A wide range of adjustability is highly desirable because of the difficulty of adjusting the length of the blind accurately in the factory to fit a distant window, especially when the measurements of the window may have been taken rather carelessly. In the past it has frequently been necessary for the seller of the blinds to make a special trip to the location of an installation after the blinds have been installed in order to adjust the length as to which complaint had been made. According to the present invention this adjustment may be made so easily without the use of any tool that the purchaser will ordinarily make the adjustment rather than require the seller to do so.

The raising cord has been secured to the bottom rail in a variety of ways but it usually extends through a hole to be secured at the bottom thereof and is covered over in a way which makes its removal difficult. In short, the raising cords are not usually detachable from the bottom rail with very great ease although there are obvious advantages in having it readily detachable, as, for

example, to remove the slats for cleaning them. To this end the bottom rail may be provided with two closely spaced holes for the cord so that the cord can be passed downwardly through one hole and provided with a ferrule for insertion upwardly into the other hole. This provides an easy assembly which gives a neat appearance and permits ready removal of the cord. However, it is found that under some conditions when there was slack in the cord the ferrule would drop out of the hole and the cord would become detached unintentionally.

According to the preferred form of the present invention these problems of attaching the tapes and of attaching the cords are both solved simultaneously by an exceedingly simple contrivance. This contrivance comprises a double clip in which each of the two clips secures one side tape and in which the handle portions of the clips extend toward one another and meet half-way across the bottom rail so that they hold the raising cord in position with its ferrule in the extra hole and also completely conceal the ends of the side tapes and the portion of the raising cord below the bottom rail. Furthermore, they form a cavity which is sufficiently large to accommodate a considerable excess of the side tapes so as to give all the adjustment that is likely to be desired.

Additional advantages and objects of the invention will be apparent from the following description and from the drawing, in which:

Fig. 1 is a fragmentary perspective view showing a blind embodying the present invention.

Fig. 2 is a fragmentary perspective view showing the bottom rail of the blind inverted and the double clip of this invention opened out.

Fig. 3 is a vertical sectional view through the double clip and blind to which it is attached.

Although the invention may take numerous forms, only one has been chosen for illustration. In this form the special fastener has been illustrated in connection with a conventional Venetian blind including slats 11, bottom rail 12, ladder tape 13, and raising cord 14. The ladder tape 13 includes the customary side tapes or tilt tapes 16 and the cross members 17 which support the slats in spaced relation.

The special fastener includes a base or frame 21 which may be secured to the bottom rail 12 by any suitable means as by screws 22. The base has flanges 23 folded along opposite sides thereof. To these flanges are pivoted the clips 24, each of which includes a toothed flange 26 and a handle flange 27. With the clips in the position shown in Fig. 2, the teeth 28 on the toothed flange 26

are out of engagement with the side tapes 16 and these tapes may therefore be threaded through the space between the clips 24 and the base 21 or may be adjusted in the space.

When the clips 24 are pivoted to the closed position shown in Figs. 1 and 3, the teeth 28 firmly engage or bite into the side tapes 16 as seen in Fig. 3 and thus retain these side tapes in any position to which they have been adjusted. In this way the length of the blind or the level at which the bottom rail 12 is suspended may be adjusted.

When the clips are closed to secure the tapes in place, they also form a housing for concealing a considerable extra length 16' of the tapes. To this end the handle portions 27 are shaped to approximately contact one another midway between their pivotal points so that they completely close the opening between the flanges 23. To facilitate opening the clips and limiting their movement in the closing direction to the position desired, lugs 31 are provided on the handle portions 27, these lugs resting in notches 32 in the flanges 23. It should be noted that the clips are held in their closed position by ribs 34 and resilient lips 36 formed as extensions of the base 21 and positioned to cooperate with the teeth 28 and press these outwardly when in closed position as seen best in Fig. 3. This extension is bent somewhat away from the bottom rail 12 so that it will be flexed toward said rail as the teeth 28 ride over the rib 34 and bear against the lip 36. A sufficient resilient motion of the rib 34 and lip 36 is made possible by the slot 37 which separates the extension including rib 34 and lip 36 from the flanges 23.

The raising cord customarily extends through the bottom rail 12 to which it is secured at the under-edge thereof. One of the important advantages of this special fastener is that it hides the securing knot or other formation in the cord 14. According to the preferred form of the invention, the advantages already described are also combined with an advantageous method of securing the raising cord 14. This method is clearly seen in Fig. 3 and involves two parallel and closely spaced holes 41 and 42 in the bottom rail 12. A rigid ferrule or metallic collar 43 is applied around the end of the raising cord 14 and this cord is threaded down through the hole 41 and up into the hole 42. Because of the rigidity of the ferrule 43, tension on the cord 14 will never pull this ferrule out of the hole 42. Slackness in the cord 14 could, however, permit the ferrule 43 to drop out of the hole 42 if there were nothing to retain it in said hole. In the present instance, however, the handle portions 27 of clips 24 retain the cord with its ferrule 43 in place in addition to concealing the portion of the cord 14 which would otherwise be exposed below the bottom rail 12.

From the foregoing it is to be observed that the special fastener of this invention not only secures the tapes to the bottom rail 12 but permits their ready adjustment and also contributes to and makes entirely satisfactory the simplified manner of holding the cord which permits it to be simply threaded into the position and which provides a neat construction.

The possible range of adjustment of the length of the tilt tapes may be quite large since two inches or even more of each tilt tape can easily be accommodated in the housing provided by the clips 24 and the side flanges 23. Due to the

limitations of drawing, the length which could be provided has not been fully shown in Fig. 3 and it should then be understood that the extra lengths 16' of the tapes could extend all the way across the special fastener if desired since the bend of the raising cord 14 may be flattened out considerably if necessary to make room for the passage of such tapes between the cord and the clip handles 27. The bottom rail may be positioned quite close to the bottom slat, or even adjacent to it as shown in Fig. 3, so that lowering the bottom rail will not leave too wide a gap. If it should be necessary to raise the bottom rail, the slat can be removed and the cross tapes which supported it cut off.

The double clip may be made initially as two separate clips if preferred, although they would not be as easily applied as the single clip shown. Likewise, such clips could be separated if it were not desired that they conceal the cord as well as the excess lengths of the tapes, or they could meet only at a small area over the cord and their meeting ends need not be straight. If used on the tilt rail above the slats, slots may be provided through the clip and base for the cord to extend through to the head rail.

The disclosures of this application are illustrative and the invention is not to be limited by them. In fact, if modifications or improvements are not at once obvious, they may be devised in the course of time to make additional use of the broad ideas taught and covered by this application. The claims are intended to point out novel features and not to limit the invention except as may be required by prior art.

I claim:

1. The combination of a Venetian blind including a plurality of slats, a bottom rail therebelow, a raising cord extending through the slats and the bottom rail and secured to the bottom rail, tilt tapes extending along the sides of the slats and secured to the bottom rail, and securing means for securing the tilt tapes to the bottom rail and concealing the cord therebelow comprising a double clip including a base having flanges forming sides of the clip, and one clip portion for each tilt tape, each including a handle portion formed as an extension thereof, the two handle portions in their normal position having lugs extending therefrom through notches in the sides of the clip and extending beyond the sides to form finger grips.

2. The combination of a Venetian blind including a plurality of slats, a bottom rail therebelow, a raising cord extending through the slats and the bottom rail and secured to the bottom rail, tilt tapes extending along the sides of the slats and secured to the bottom rail, and securing means for securing the tilt tapes to the bottom rail and concealing the cord therebelow comprising a double clip including a base having flanges forming sides of the clip, and one clip portion for each tilt tape, each including a handle portion formed as an extension thereof, the two handle portions in their normal positions substantially abutting one another, concealing the portion of the cord below the bottom rail and the ends of the tilt tape, and having lugs extending therefrom through notches in the sides of the clip and extending beyond the sides to form finger grips.

HAROLD R. HAASE,