Dec. 23, 1969 J. A. ANDERLE 3,485,285

VENETIAN BLIND CONSTRUCTION FOR LIMITING LIFT-CORD DANGLE

Filed Sept. 20, 1968 2 Sheets-Sheet 1

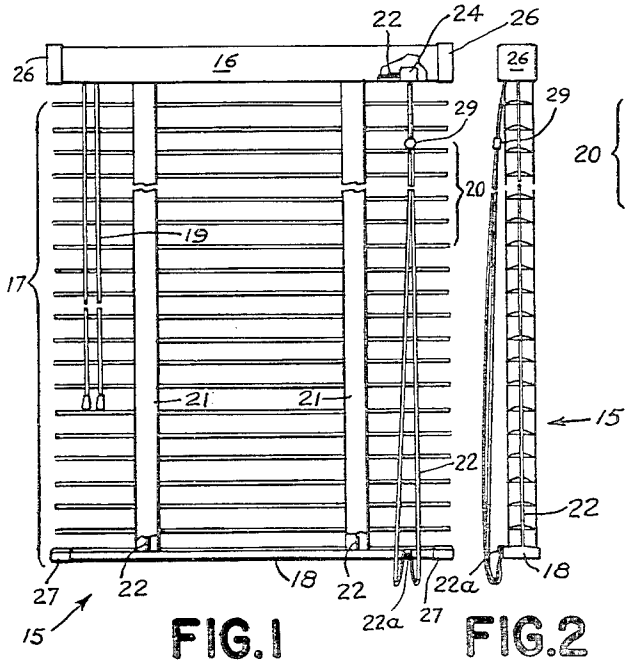

FIG.1 FIG.2

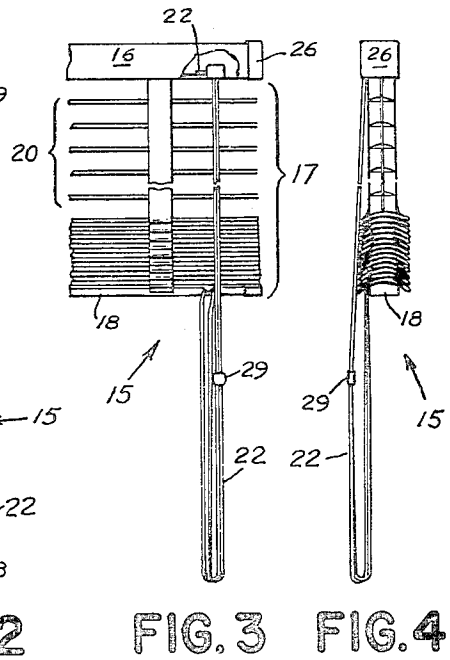

FIG.3 FIG.4

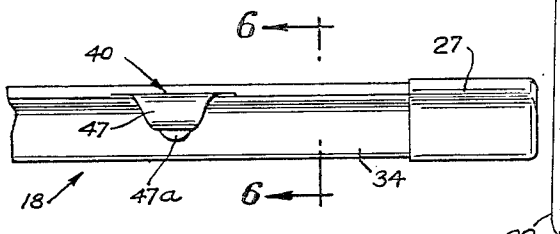

FIG.5

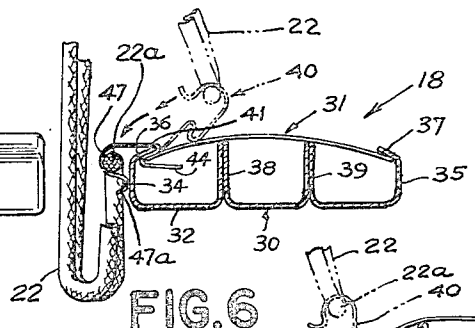

FIG.6

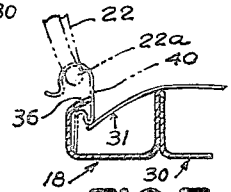

FIG.7

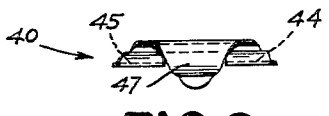

FIG.8

FIG.9

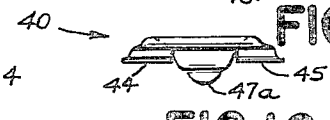

FIG.10

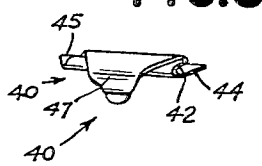

FIG.11

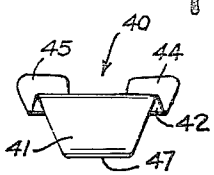

FIG.12

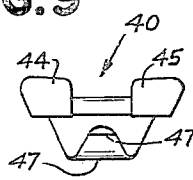

FIG.13

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VENETIAN BLIND CONSTRUCTION FOR LIMITING LIFT-CORD DANGLE

Filed Sept. 20, 1968 2 Sheets-Sheet 2

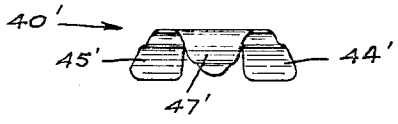

FIG.14

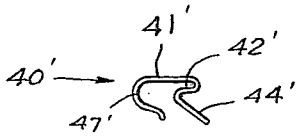

FIG.15

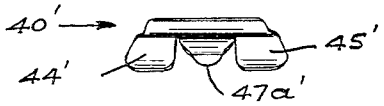

FIG.16

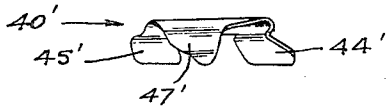

FIG.17

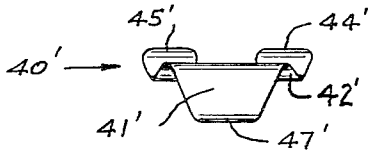

FIG.18

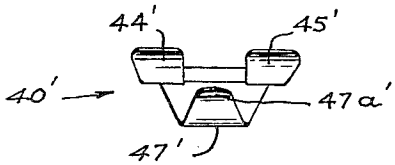

FIG.19

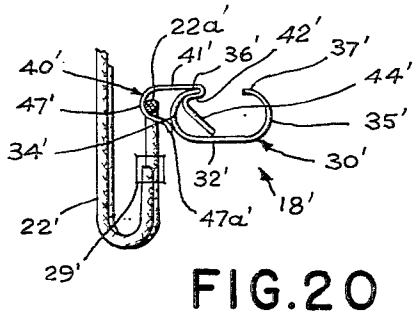

FIG.20

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United States Patent Office

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VENETIAN BLIND CONSTRUCTION FOR LIMITING LIFT-CORD DANGLE

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Continuation-in-part of application Ser. No. 687,013, Nov. 30, 1967. This application Sept. 20, 1968, Ser. No. 761,075

Int. Cl. E06b 9/30, 9/38

U.S. Cl. 160—168 9 Claims

ABSTRACT OF THE DISCLOSURE

The bottom bar of the blind is provided with a cord retainer, which has a cord-receiving portion adjacent to the front of the bottom bar. The lift cord, hanging from the cord lock, has its lower end connected to the cord-receiving portion of the retainer. As the bottom bar is raised to open the blind, the lower end of the lift cord is carried upwardly by the bottom bar.

CROSS REFERENCE TO RELATED APPLICATION

This is a continuation-in-part of application Ser. No. 687,013 filed Nov. 30, 1967, now abandoned.

BACKGROUND OF THE INVENTION

In the Venetian blinds which are most commonly used, a portion of the lift cord hangs down from the cord lock at the top of the blind and is manually pulled in and payed out to raise and lower the bottom bar and thereby raise and lower the blind. With the most usual stringing arrangement for the lift cord, the lower end of such down-hanging portion of the lift cord drops 1 foot for each foot that the bottom bar is raised. This can result in the lift cord dangling below the window sill, which is often objectionable.

If there be a radiator beneath the window, which is frequently the case, the lift cord can dangle behind the radiator and pick up dust. In some situations the lift cord may become entangled with a valve of the radiator. If the blind be at a window behind a sink, the lift cord may dangle into the dishwater. If the blind be at a window behind a stove, the lift cord can dangle into cooking utensils.

To limit the lift-cord dangle, the lower end of the down-hanging portion of the lift cord has, in some instances, been wrapped around the bottom bar and tied. Then, with the most commonly used stringing arrangement, the end of the lift cord is carried up 1 foot for each foot that the bottom bar is raised. However, this arrangement hasn't worked out well in many instances.

By being wrapped around the bottom bar, the lift cord picks up dirt from the window sill and presents a dirty appearance when the bottom bar is raised above eye level. Also, the lift cord impairs the light-excluding capacity of the blind; it prevents the bottom bar from closing tightly against the window sill and prevents the bottom slat of the blind from closing tightly against the bottom bar. When the bottom bar is lowered against the window sill, only one end of the bar contacts the sill, the other end being propped up by the lift cord. This is unsightly.

When the bottom bar is to be lowered, the operator first swings the lift cord sidewise to unlock it and permit it to run through the cord lock; and with the arrangements that have been used this has caused lifting of the end of the bottom bar to which the lift cord is attached. This lifting of one end of the bottom bar by the lift cord adds to the difficulty of judging the movement of the bottom bar to bring it to the desired new level.

In addition to the foregoing objections, shrinkage of the lift cord has caused permanent inclination of the bottom bar through pulling up of the end about which the lift cord has been wrapped.

SUMMARY OF THE INVENTION

The bottom bar of the blind is provided with a cord retainer; and the retainer has a cord-receiving portion to which the lower end of the down-hanging portion of the lift cord is attached. In accordance with one feature of the invention the cord-retainer has a plurality of portions which collectively make interfitting holding engagement with the bottom-bar structure. In accordance with other features of the invention the cord retainer is quick-attachable to the lift cord and in general is quick-attachable to the bottom bar after the blind has been installed. In accordance with another feature of the invention the applied retainer is located entirely above the level of the bottom of the untilted bottom bar and entirely below the level of the top of the untilted bottom bar. In accordance with a further feature of the invention the cord-receiving portion of the retainer is located adjacent to the front of the bottom bar on the outside of the bottom bar. The portion of the lift cord which hangs down from the cord lock at the top of the blind has its end connected to the cord-receiving portion of the retainer, so that the end is carried up by the bottom bar as the bottom bar is raised.

In accordance with another feature of the invention the length of the lift cord is made such that, with the bottom bar in its lowermost position, the portion of the lift cord which hangs from the cord lock will be longer than the distance between the cord lock and the bottom bar. The down-hanging portion of the lift cord then droops below the bottom bar when the cord is hanging freely.

The portion of the lift cord which hangs down from the cord lock varies in length, since it is pulled in and payed out to raise and lower the blind. However, with the most commonly used stringing arrangement, the bottom bar rises 1 foot for each foot that the lift cord is pulled in; and for each foot that the lift cord is pulled in, the lower end of the down-hanging portion of the lift cord is carried up 1 foot by the bottom bar. The net result is that, though the droop of the lift cord below the bottom bar increases as the bottom bar is raised, the lowermost reach of the lift cord below the cord lock remains constant.

Because of the droop of the freely-hanging lift cord below the bottom bar, even when the bottom bar is in lower positions, the lift cord causes no raising of the cord-attached end of the bottom bar when the operator swings the down-hanging portion of the lift cord sidewise to unlock it and permit the cord to run through the cord lock for raising or lowering the bottom bar.

While the presently preferred embodiments of the invention have all of the foregoing features, among others, it is

left to the user to decide upon the omission of any feature or features which are not needed for his particular use.

BRIEF DESCRIPTION OF THE VIEWS OF THE DRAWINGS

FIGURE 1 is a largely diagrammatic front elevation of a Venetian blind of the invention in fully-extended condition, portions being broken out to conserve space and parts being broken away to reveal concealed elements.

FIGURE 2 is a largely diagrammatic end elevation, looking from the right of FIGURE 1.

FIGURE 3 is a fragmentary front elevation, corresponding to FIGURE 1 but with the bottom bar raised to an intermediate position.

FIGURE 4 is an end elevation, looking from the right of FIGURE 3.

FIGURE 5 is a front elevation of the right-hand portion of the bottom bar that is shown in FIGURES 1 and 3, to a larger scale than FIGURES 1 and 3, with the lift cord omitted.

FIGURE 6 is a vertical section taken on the line **6—6** in FIGURE 5. A manner of quick-attaching the lift-cord retainer to the bottom-bar structure is indicated, and the connection of the end of the lift cord to the retainer is indicated.

FIGURE 7 is a fragmentary sectional view corresponding to FIGURE 6 but with the lift-cord retainer indicated as being in an intermediate position during its attachment to the bottom bar in the manner that is indicated in FIGURE 6.

FIGURE 8 is a front elevation of the lift-cord retainer that is shown in FIGURES 1–7.

FIGURE 9 is an end view of the same lift-cord retainer, looking from the right of FIGURE 8.

FIGURE 10 is a rear elevation of the same lift-cord retainer. In other words, FIGURE 10 is a view looking from the back of FIGURE 8.

FIGURE 11 is a perspective view of the same lift-cord retainer.

FIGURE 12 is a top plan view of the same lift-cord retainer.

FIGURE 13 shows the same lift-cord retainer, viewed as in FIGURE 12 but with the retainer turned over end for end.

FIGURE 14 is a front elevation of a modified lift-cord retainer.

FIGURE 15 is an end view of the modified lift-cord retainer, looking from the right of FIGURE 14.

FIGURE 16 is a rear elevation of the modified lift-cord retainer. In other words, FIGURE 16 is a view looking from the back of FIGURE 14.

FIGURE 17 is a perspective view of the modified lift-cord retainer.

FIGURE 18 is a top plan view of the modified lift-cord retainer.

FIGURE 19 shows the modified lift-cord retainer viewed as in FIGURE 18 but with the retainer turned over end for end.

FIGURE 20 is an end view of a narrow bottom-bar with the modified lift-cord retainer applied thereto, the connection of the end of the lift cord to the retainer being indicated, and the end cap for the bottom bar being omitted.

DESCRIPTION OF THE EMBODIMENTS THAT ARE PRESENTLY PREFERRED

Two forms of the invention are shown in the drawing. Except as may be otherwise indicated, the description under the present heading refers to one or the other of the particular forms of the invention that are shown in the drawing; it does not necessarily refer to any other form in which the invention may be embodied. The claims, however, do embrace other forms in which the invention may be embodied. The best modes thus far contemplated of carrying out the invention are herein disclosed. Nevertheless the disclosure is by way of illustration and example, since other specific modes are possible.

In FIGURES 1–4, the Venetian blind is designated as a whole by **15**. It has a conventional head bar **16** beneath which there is suspended a conventional ladder-and-slat assembly **17**. At the bottom of the ladder-and-slat assembly there is a bottom bar **18**. The slats **20** of the ladder-and-slat assembly are supported in superimposed relation and articulated together by a pair of conventional ladders **21, 21** as is well understood. The ladder-and-slat assembly **17** is considered to include the slats **20**, the bottom bar **18** and the ladders **21, 21**. The slats and bottom bar are adapted to be tilted in conventional manner by a conventional tilt cord **19** that operates through conventional tilting-mechanism.

The bottom bar **18** is raised and lowered in conventional manner by a lift cord **22**. The lift cord is a single length of flexible cord that is turned back upon itself to provide two branches which extend generally parallel to one another throughout much of their lengths. Referring to the single piece of lift cord **22** taken as a whole, the two ends are attached to the bottom bar **18** adjacent to the ladders **21, 21** respectively. Starting from these two ends the two branches of the lift cord extend upwardly between the front and rear vertical tapes of the ladders **21, 21**, into the head bar **16**, horizontally to a conventional cord lock **24** and thence downwardly through the cord lock. Beneath the cord lock **24** there is the two-branch lift-cord portion that is seen hanging down from the cord lock **24** at the right-hand side of FIGURE 1. The foregoing stringing arrangement for the lift cord is the one that is the most usual in the art.

The end of the down-hanging portion of the lift cord, seen at the right-hand side of FIGURE 1, is of importance in connection with the present invention and will be referred to later.

The bottom bar **18** of the blind is raised and lowered in known manner by grasping the down-hanging portion of the lift cord and pulling it in or paying it out to raise or lower the bottom bar. If the bottom bar is in any suspended position, as distinguished from resting on the window sill, the lift cord will be locked by the cord lock. When the bottom bar is to be raised from such position it is only necessary to pull in the down-hanging portion of the lift cord. However, when the bottom bar is to be lowered the operator will swing the lift cord sidewise to unlock it before paying out the lift cord. If the lowered position in which the bottom bar is placed is also a suspended position, then the operator will swing the lift cord sidewise in the opposite direction to lock it for holding the bottom bar in the lowered position. The manner of raising and lowering of the bottom bar, and the manner of unlocking and relocking of the lift cord when needed, are standard operating procedure that is well-known in the art.

The Venetian blind **15** is mounted by conventional installation brackets **26, 26** which support the ends of the head bar **16**. These brackets may be of any suitable type, e.g. the type shown in U.S. Patent 2,680,589. Telescoped onto the two ends of the bottom bar **18** there are conventional end caps **27, 27**; these may be of any suitable type, e.g. the type shown in U.S. Patent Des. 162,192. The two branches of the down-hanging portion of the lift cord **22** are held together in known manner by a cord equalizer **29**. With the bottom bar fully lowered, the equalizer **29** can be placed in any desired position along the length of the down-hanging portion of the lift cord, e.g. near the top thereof as shown in FIGURES 1 and 2. The equalizer **29** may be of any suitable type, e.g. the type shown in U.S. Patent 2,877,527. The cord lock **24** may be of any suitable type, e.g. the type shown in U.S. Patent 2,731,111.

The Venetian blind as thus far described under the present heading (description of the embodiments, etc.) is old and well-known in the art.

Reference will now be had to FIGURES 5—7. The bottom bar **18** has an upwardly-opening channel-shaped body **30** made from heavy gauge sheet-steel. The body **30** is closed by a springy cover **31** made of light-gauge sheet-metal, e.g. steel or aluminum. The body **30** has a base **32** which constitutes the bottom of the bar **18**, has upwardly extending front and rear portions **34** and **35** which constitute the front and rear of the bar, and has front and rear longitudinal flanges **36** and **37** which extend inwardly at the tops of the upwardly extending portions **34** and **35**. Extending longitudinally of the body in the interior thereof, the channel-shaped formation has upwardly-projecting double-layer ribs **38** and **39** which project to a level somewhat above the longitudinal flanges **36** and **37**. The cover **31**, which may be a length of crowned Venetian blind slat, is applied telescopically to the body **30**, being placed over the tops of the ribs **38** and **39** and flexed downwardly to pass under the flanges **36** and **37** against which the edge portions of the cover **31** resiliently press in an upward direction.

The bottom bar **18** of the present invention is provided with the lift-cord retainer which is shown separately in FIGURES 8–13, being designated as a whole by **40**. This retainer is made in one piece from suitable sheet metal, preferably stainless steel about .025" thick. The retainer **40** includes the generally S-shaped configuration that is seen in FIGURE 9. This S-shaped configuration has a plurality of portions which collectively are adapted to make interfitting and holding engagement with the structure of the bottom bar **18**. Among such portions are a portion at **41** which is adapted to overlie the front flange **36** of the bottom-bar body, a portion **42** which is adapted to underlie the front flange **36**, and two coplanar portions **44** and **45** which are adapted to underlie the cover **31**. The two portions **44** and **45** are at a distance from each other, being spaced lengthwise of the bottom bar. Extending forwardly from location **41** in FIGURES 6 and 9 the retainer **40** has a cord-retaining portion **47** which, when the retainer has been applied to the bottom bar, extends forwardly from the top of flange **36** and then curves downwardly and thence rearwardly toward the front wall **34** of the bottom-bar body, all as seen in FIGURE 6. This cord-retaining portion **47** has a backturned tip at **47***a* that closely approaches and may engage the front wall **34** of the bottom-bar body. The smooth backturned tip **47***a* obviates marring of the finish on the front wall of the bottom bar.

Preparatory to assembling the retainer **40** with the bottom bar **18**, the end **22***a* of the down-hanging portion of the lift cord is connected with the cord-receiving portion **47** of the retainer **40**. This is done by inserting the cord sidewise into the cord-receiving portion **47**. Then with the relevant end cap **27** unapplied or temporarily removed, the cord retainer **40** can be quickly attached to the body **30** of the bottom bar by sliding the retainer **40** lengthwise into position with respect to the bottom-bar structure. The various portions of the retainer constituting or associated with the S-shaped formation act collectively to make interfitting holding engagement with the bottom-bar structure as is seen in full lines in FIGURE 6. It will be seen that the end **22***a* of the down-hanging portion of the lift cord is attached to the bottom bar adjacent to the front of the bottom bar on the outside thereof; also that the end **22***a* of the lift cord will move up and down with the bottom bar as has been explained.

The lift-cord retainer **40** is of generally trapezoidal shape as viewed in plan. The small front end of the retainer renders the retainer relatively inconspicuous when installed. The broad expanse of the hidden portion of the retainer provides rigidity and strength. The space between the two portions **44** and **45** facilitates entry of the cord-end **22***a* into the cord-retaining portion **47**, when the cord is being connected with the retainer preparatory to installing the retainer.

The lift-cord retainer **40** is located wholly between the levels of the bottom and top of the untilted bottom bar. Thus the retainer can't interfere with closing of the bottom bar against the slat immediately above; also the retainer can't strike the window sill and prop up the bottom bar unless the bar is tilted far forwardly, which is rarely the case.

When a blind has been installed without the lift-cord retainer **40**, it may in some instances be inconvenient to remove the end cap **27** for installation of the retainer **40**. Also there are occasional instances in which the cord lock **24** is at the middle of the head bar **16** and the retainer **40** has to be positioned between the ladders **21, 21**. In these instances the retainer **40** may be quickly and facilely installed as indicated in FIGURES 6 and 7. The end **22***a* of the lift cord having been connected with the retainer **40** as already explained, the retainer is placed in a position shown in phantom lines in FIGURE 6 and pressed downwardly and rotated forwardly to the full-line position shown in FIGURE 6. On the way the retainer assumes the position shown in phantom lines in FIGURE 7, in which the retainer has flexed downwardly the forward portion of the cover **31**. As the retainer is further rotated toward the full-line position of FIGURE 6, the cover **31** snaps upwardly trapping the retainer portion **42** (see FIGURE 9) above the cover with the retainer portions **44** and **45** beneath the cover. Also, the longitudinal flange **36** is snugly embraced by the retainer portions **42** and **41** taken together. This application and interfitting of the relevant portions of the retainer **40** with the bottom-bar structure have the attributes of a barbed fish hook. While the retainer **40** can be readily attached to the bottom-bar structure as indicated in FIGURES 6 and 7, it is very difficult indeed to remove the retainer without sliding it out the end of the bottom-bar body **30**.

The modified lift-cord retainer of FIGURES 14–19, and the bottom bar equipped therewith as shown in FIGURE **20**, will now be described and explained.

In FIGURE 20 the bottom bar **18'** includes the modified lift-cord retainer which is shown separately in FIGURES 14–19, the modified retainer being designated as a whole by **40'**. The body **30'** of the bottom bar, the end of which is seen in FIGURE 20, is an elongated sheet-steel channel that extends for substantially the width of the Venetian blind ladder-and-slat assembly of which it is the bottom member. The slats of the assembly are narrow and the bottom-bar body or channel **30'** is correspondingly narrow; the particular channel shown is approximately ¾" wide and approximately ⅜" high.

The bottom-bar body or channel **30'** has a base **32'** which constitutes the bottom of the bar **18'**, has upwardly extending front and rear portions **34'** and **35'** which are curved as shown and constitute the front and rear of the bar, and has front and rear longitudinal flanges **36'** and **37'** which extend inwardly at the top of the bar. This gives the bottom-bar channel **30'** a C-shaped form as seen endwise or in cross section, the mouth of the C-shaped configuratoin being directed upwardly when the bottom bar is untilted. Cup-shaped end caps of soft plastic (not shown) are customarily telescoped onto the two ends of the bottom-bar channel **30'**, making a friction fit therewith. The mouth of the C-shaped configuration may be closed by a blind-slat which merely rests on top of the channel **30'**, being held from undue displacement by the ladders and lift cords of the blind which are secured to the channel **30'** in any suitable manner, e.g. as disclosed in U.S. Patent application Ser. No. 732,144 filed May 27, 1968.

The two forms of lift-cord retainer that are shown in the drawing, i.e. the retainer **40** shown in FIGURES 8–13 and the modified retainer **40'** shown in FIGURES 14–19, have corresponding parts which are designated by corresponding reference characters, each reference character being provided with a prime mark (') when applied to the modified retainer **40'**. The modified retainer **40'**

is the same as the retainer **40** except that the coplanar retainer-portions **44'** and **45'** incline downwardly-rearwardly from the portion **42'** as shown in FIGURES 15 and 20 instead of extending as in FIGURES 9 and 11 where the coplanar portions **44** and **45** extend rearwardly substantially parallel to the portion **42**.

The lift cord **22'** having been attached to the modified retainer **40'** in the same manner that the lift cord **22** was attached to retainer **40**, the modified retainer **40'** is applied to the bottom-bar channel **30'** by sliding it in from the end of the channel. This is done either before an end cap is applied to the channel **30'** or while the end cap has been temporarily removed.

As is seen in FIGURE 20 the modified retainer **40'** has a plurality of portions which collectively make interfitting holding engagement with the bottom-bar structure and prevent significant rocking of the retainer **40'** with respect to the bottom-bar structure. The portions of the modified retainer which collectively make the interfitting holding engagement with the bottom-bar structure are the rearwardly and downwardly-extending portions **44'** and **45'** that closely confront and may engage the base **32'** of the bottom bar, the portions **41'** and **42'** which respectively overlie and underlie the front longitudinal flange **36'**, and the backturned tip **47***a'* of the cord-receiving portion **47'**, which backturned tip closely confronts and may engage the front **34'** of the bottom-bar channel **30'**.

In FIGURE 20 the lift cord **22'** is attached to the front of the bottom-bar channel the same as the lift cord **22** in FIGURES 1–4 and 6. With the bottom bar **18'** fully lowered the lift cord **22'** droops below the bottom bar as shown in FIGURE 20, the same as the lift cord **22** droops below the fully lowered bottom bar in FIGURES 1, 2 and 6. As the bottom bar **18'** is raised the bottom end **22***a'* of the down-hanging portion of the lift cord **22'** is carried upwardly. In short a blind equipped with the modified lift-cord retainer **40'** as shown in FIGURE 20 functions just the same in limiting lift-cord dangle as does the blind of FIGURES 1–4.

The two branches of the down-hanging portion of the lift cord are held together by a suitable cord equalizer **29'**, which corresponds to the equalizer **29** in FIGURES 1–4. Where the lift cord **22'** is of small diameter as compared to the open area of the cord-receiving loop **47'** it may be advantageous to place the equalizer **29'** close to the loop **47'** is shown in FIGURE 20, to inhibit sliding movement of the cord through the loop **47'**.

I claim:

What is claimed is:

1. A Venetian blind in which the lift cord passes through a cord lock at the top of the blind and has a portion that hangs down from the cord lock, the bottom bar of the blind being raised and lowered by manually pulling in and paying out such down-hanging portion of the lift-cord—wherein the improvement comprises:

the bottom bar being provided with a retainer for the end of said down-hanging portion of the lift cord,

said retainer having a plurality of portions which collectively make interfitting holding engagement with the bottom-bar structure,

said retainer having a cord-receiving portion adjacent to the front of the bottom bar on the outside of the bottom bar,

the cord-receiving portion of the retainer being a portion which extends forwardly from a level adjacent to the top of the bottom bar and then extends downwardly and thence rearwardly toward the front of the bottom bar,

the end of said down-hanging portion of the lift cord being connected to said cord-receiving portion of the retainer, and

said down-hanging portion of the lift cord having a variable length which, at all levels of the bottom bar, is greater than the distance between the cord lock and the bottom bar whereby the lift cord droops below the bottom bar when the cord hangs freely from the cord lock.

2. A Venetian blind bottom-bar having an upwardly opening channel-shaped body and a springy sheet-metal cover for the body, said body having a base which constitutes the bottom of the bar, having upwardly extending front and rear portions which constitute the front and rear of the bar, and having front and rear longitudinal flanges extending inwardly at the tops of said upwardly extending portions, and the springy cover projecting beneath said inwardly extending longitudinal flanges—wherein the improvement comprises:

the bottom bar being provided with a cord retainer having a plurality of portions which collectively make interfitting holding engagement with the bottom-bar structure,

said portions which make the holding engagement including a portion which overlies said front flange and a portion which extends between said front flange and said cover, and

said retainer having a cord-receiving portion adjacent to the front of the bottom bar on the outside of the bottom bar.

3. A Venetian blind bottom-bar as in claim **2** wherein the improvement also comprises: the cord-retainer portions which collectively make interfitting and holding engagement with the bottom-bar structure having among them a portion which extends beneath said cover.

4. A Venetian blind bottom-bar as in claim **2** in which the improvement further comprises: said cord retainer being a single piece of sheet metal, and the cord-receiving portion of the retainer being a portion which extends forwardly from said front flange of the bottom-bar body and then curves downwardly and thence rearwardly toward the front of the bottom-bar body.

5. A Venetian blind bottom bar as in claim **2** wherein the improvement also comprises: the cord-retainer portions which collectively make interfitting and holding engagement with the bottom-bar structure having among them a pair of portions, spaced longitudinally of the bottom bar, which extend beneath said cover.

6. A Venetian blind bottom-bar having a channel-shaped body, said body having a base which constitutes the bottom of the bar, having upwardly-extending front and rear portions which constitute the front and rear of the bar, and having a front longitudinal flange extending inwardly at the top of the bar—wherein the improvement comprises:

the bottom bar being provided with a cord retainer having a plurality of portions which collectively make interfitting holding engagement with the bottom-bar structure,

said portions which make the holding engagement including a portion which overlies said front longitudinal flange and a portion which extends beneath said front longitudinal flange, and

said retainer having a cord-receiving portion adjacent to the front of the bottom bar on the outside of the bottom bar.

7. A Venetian blind bottom-bar as in claim **6** wherein the improvement also comprises: the cord-retainer portions which collectively make interfitting and holding engagement with the bottom-bar structure having among them a portion which extends into closely-confronting relation to the base of the bottom bar.

8. A Venetian blind bottom-bar as in claim **6** in which the improvement further comprises: said cord retainer being a single piece of sheet metal, and the cord-receiving portion of the retainer being a portion which extends forwardly from said front flange of the bottom-bar body and then extends downwardly and thence rearwardly toward the front of the bottom-bar body.

9. A Venetian blind bottom-bar as in claim **6** wherein the improvement also comprises: the cord-retainer por-

tions which collectively make interfitting and holding engagement with the bottom-bar structure having among them a pair of portions, spaced longitudinally of the bottom bar, which extend into closely-confronting relation to the base of the bottom bar.

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