April 28, 1964 A. D. VAN THIENEN 3,130,776

VENETIAN BLIND CORD GUIDE

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FIG.1

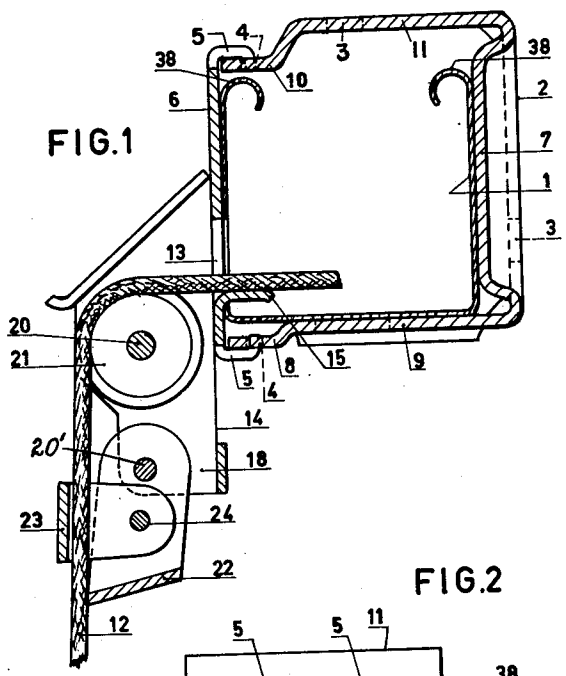
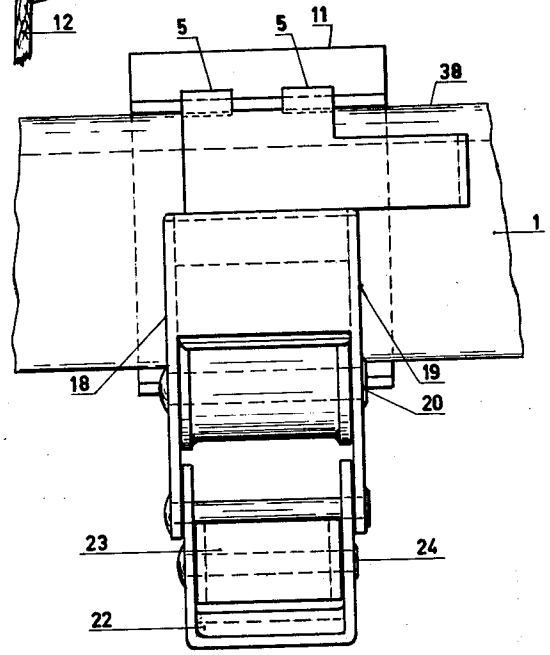


FIG.2



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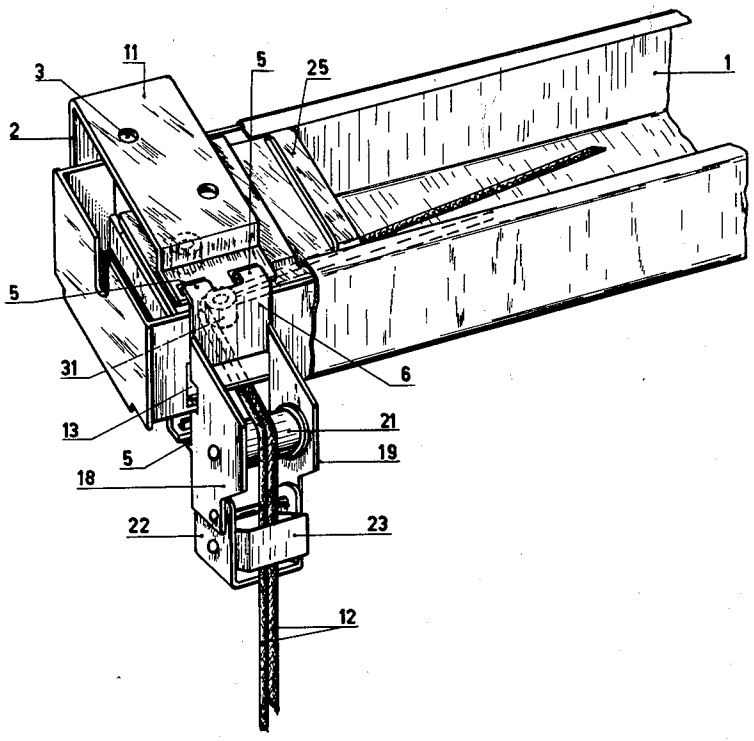
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FIG.1a



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FIG.3

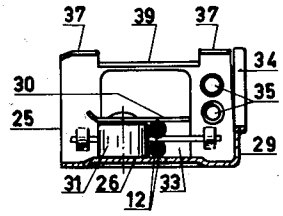


FIG.4

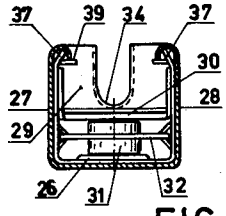


FIG.5

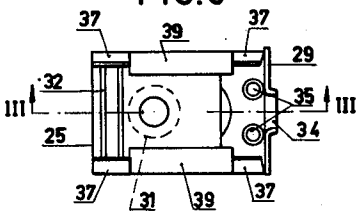


FIG.8

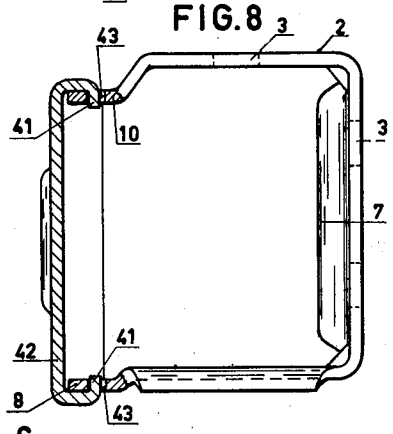


FIG.6

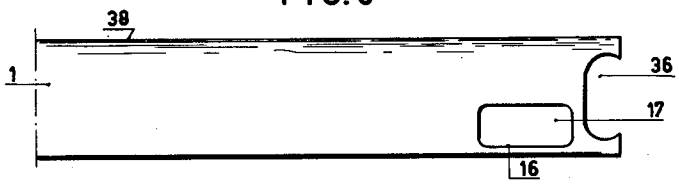
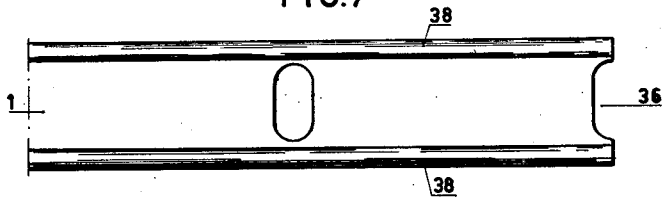


FIG.7



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VENETIAN BLIND CORD GUIDE

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Claims priority, application Netherlands June 23, 1960
2 Claims. (Cl. 160—178)

This invention relates to a device for guiding the cords of a Venetian blind provided with a head rail, and to a Venetian blind equipped with such a device. The invention aims at constructing the device for guiding the cords of a Venetian blind in such manner that it may be easily mounted in the head rail of a Venetian blind and, moreover, produces a reinforcement of said head rail. This is attained by the device according to the invention in that said device comprises an insert element of such dimensions as to be adapted to be mounted in the head rail of the Venetian blind and in which one or more guiding means for the cords are provided, as well as a locking device serving to lock the cords, said locking device being provided with fastening means with the aid of which said locking device may be fixed relative to the insert element. It is preferred to construct the guiding means as rollers or as a single roller on which a number of cords may run. The device according to the invention is particularly suitable for Venetian blinds with narrow slats, of which the head rail has a relatively small cross-section.

In order to attain that the insertion element keeps the legs of the head rail together the insert element may, according to the invention, comprise lips adapted to engage the bent edges of the head rail of a Venetian blind. According to the invention the head rail is still better kept together in that the insert element comprises lips adapted to lie against the bent edges of the upper head rail of the Venetian blind.

According to the invention the insert element may comprise a bearing for the actuating shaft of the Venetian blind. The insert element may, furthermore, comprise one or more abutments adapted to co-operate with the upper edges of the head rail of a Venetian blind and by which it is attained that the insert element can be accurately put in place.

In order to arrive at a rigid unit the device may, according to the invention, comprise a U-shaped supporting member of which the ends of the legs have fastening means adapted to cooperate with fastening means of the locking device for the cords or with a closing plate. This U-shaped member may clasp the head rail of a Venetian blind and may be secured with the aid of one or more screws or like fastening means to a wall or some other supporting means.

The invention also relates to a Venetian blind provided with a device according to the invention, said Venetian blind having a head rail of which one of the side walls is provided at the ends with a recess or aperture allowing the lift cords of the Venetian blind to be passed therethrough. The tilt cords may thereby pass through a recess or aperture of the head rail of the Venetian blind.

The invention will be further explained below with reference to the accompanying drawings showing by way of example an embodiment of the device according to the invention.

FIG. 1 shows a section of a locking device and a supporting member for the head rail of a Venetian blind on an enlarged scale.

FIG. 1*a* shows in perspective the insert shown in FIGS. 3–5 of the disposition of the cords in engagement with the rollers.

FIG. 2 shows a front view of the locking device.

FIG. 3 is a section of an insert element taken on the line III—III of FIG. 5.

FIG. 4 is a side view of said insert element, in which the head rail is shown.

FIG. 5 shows a top plan view of the insert element.

FIG. 6 shows a side view of the right hand end of a head rail.

FIG. 7 shows a top plan view of the right hand end of said head rail.

FIG. 8 is a section of a supporting member with a closing plate.

In FIG. 1 a head rail **1** is shown which is provided with a supporting member **2**. This supporting member comprises a U-shaped clip provided with apertures **3** offering the possibility of securing said supporting member by means of screws or other fastening means to a wall, frame, ceiling or other carrying surface. The supporting member has at the end of each of the legs two slot-like apertures **4** into which lips **5** of a locking device **6** fit. The supporting member **2** is of slightly resilient construction in order to make it possible to introduce the lips **5** in the apertures **4**. In the central portion of the U-shaped supporting member **2** there is a ridge **7**. In this way on the one hand it is attained that the locking device **6** may be easily secured to the supporting member **2** and on the other hand no inconvenience is experienced from the heads of the fastening screws. The end **8** of the lower leg **9** is slightly bent out of the plane of said leg in order to afford some place for the lower locking lips **5** so that the ends thereof may project through the apertures **4**. The end **10** of the upper leg **11** is bent in the manner shown out of the plane of said leg.

The locking device for the cords **12** is formed from sheet metal and comprises a wall with recesses or apertures **13** and **14**. The recess or aperture **13** serves to allow the cords **12** to be passed therethrough. When making this recess or aperture **13** the material originally present has been turned up to a lip **15** on which the cords are running. This lip is located above the sharp edge **16** of a recess **17** (FIG. 6) provided in the head rail **1** to allow the cords to pass therethrough. Consequently this sharp edge cannot damage the cords. The material from the recess or hole **14** has been partly turned up to two lips **5** somewhat spaced apart engaging the slot-like apertures **4** in the lower leg of the supporting member **2**. The upper end of the wall provided with the recesses **13** and **14** has likewise two lips arranged one beside the other. This wall carries two upright wall portions **18**, **19** in which there is mounted a shaft **20** for a rotatable roller **21** on which the cords **12** are running, and also a shaft **20'** is mounted therein for a pivotal clip **22** co-operating with a second clip **23** which is pivoted about a shaft **24** fixed in the clip **22**. Between these clips **22** and **23** the cords are clamped in the known way in order to keep the Venetian blind at the adjusted height.

In FIGURE 1*a* the insert element **25** for guiding the cords is also shown therein. This insert element is also separately shown in FIGS. 3–5.

The insert element **25** shown in FIGS. 1*a* and 3–5 consists of sheet metal and comprises a bottom **26**, two side walls **27** and **28** and one end wall **29**. Above the bottom **26** there is provided a partition **30**. Between said bottom and said partition there is arranged a guiding roller **31** for the lift cords **12** of the Venetian blind. A thin U-shaped metal wire **32** detachably arranged in the insert element serves to prevent the cords **12** from getting entangled. In the embodiment of the insert element **25** shown only one roller **31** and two guiding cords **12** have been indicated, but normally at least four cords **12** will be present while also more than one roller **31** may be pro-

vided. At the point where the roller 31 is located there is an aperture 33 through which the lift cords 12 are passed.

In the end wall 29 of the insert element a bearing 34 is provided for an actuating shaft (not shown) of the Venetian blind. For this purpose in said front a recess has been punched out of which the rim has been turned up in order to obtain a satisfactory bearing surface for the actuating shaft.

In the bottom 26 and in the two side walls 27 and 28 there are provided apertures 35 for allowing the tilt cords (not shown) to be passed therethrough. Of these apertures two are used according as the tilt cords should emerge. These apertures come in front of recesses 36 in the head rail 1, when the insert element 25 has been put in place in said head rail.

In order to ensure that the insert element 25 cannot be pushed too far into the head rail the end wall 29 of the insert element is so constructed that it also serves as a limiting abutment against the end portion of the head rail 1.

As is further apparent from FIGS. 3–5 each of the side walls 27, 28 is provided with two bent lips 37 fitting into the bent rims 38 of the head rail 1. Moreover, the side walls 27, 28 have substantially horizontal lips 39 lying against the end of said bent rim 38 of the head rail 1. Consequently the insert element 25 is firmly held in place. Moreover, the U-shaped supporting member 2 lends assistance in this respect.

FIG. 8 shows a supporting member 2 which is arranged at the other side of the head rail 1. Here lips 41 of a closing plate 42 are in engagement with recesses 43 of the supporting member 2. This plate 42 closes the recesses and apertures provided at that place in the head rail 1.

As is apparent from the above description all of the parts of the embodiment of the device according to the invention described above and shown in the drawings are so constructed that this device is adapted to be mounted at the left hand end as well as at the right hand end of the head rail 1. Naturally this is not necessary, since this device may also be so constructed as to be exclusively suitable for mounting at the right hand end or at the left hand end of the head rail. Obviously, the locking device may also be constructed in any other manner known per se in order to attain that the cords are locked. Also other modifications of the device or Venetian blinds according to the invention are possible without departing from the scope of the invention.

I claim:

1. A device for guiding and locking the cords of a Venetian blind provided with a hollow head rail, said device comprising an insert element fitting in said head rail, said insert element having a side provided with at least one aperture and said insert element being provided with at least one cord guiding means, said device further comprising a plate-like fixing means having at least one projection extending through the aperture in the side of the insert element and through an aperture in one side of the head rail in order to fix said insert element in said head rail, said plate-like fixing means carrying a cord locking means arranged on its other side, said plate-like fixing means co-operating with a U-shaped supporting member for the head rail, said supporting member having legs provided with apertures co-operating with locking lips of the plate-like fixing means.

2. A Venetian blind provided with a hollow head rail and an actuating shaft for the lift means of the blind slats, characterized in that it is provided with a device for guiding and locking the cords of the blind, said device comprising an insert element fitting in said head rail, said insert element having a side provided with at least one aperture and said insert element being provided with at least one cord guiding means, said device further comprising a plate-like fixing means having at least one projection extending through the aperture in the side of the insert element and through an aperture in one side of the head rail in order to fix said insert element in said head rail, said plate-like fixing means carrying a cord locking means arranged on its other side, said plate-like fixing means co-operating with a U-shaped supporting member for the head rail, said supporting member having legs provided with apertures co-operating with locking lips of the plate-like fixing means.

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