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CORD LOCK AND BRACKET

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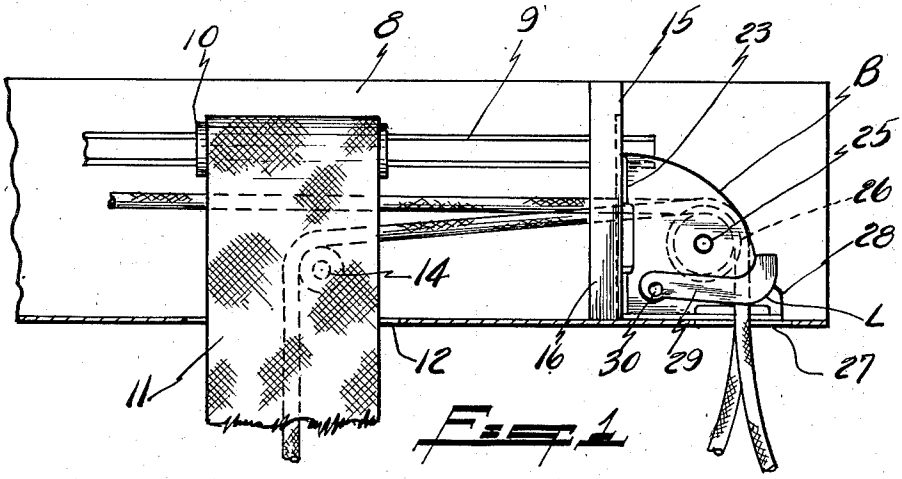


Fig. 1

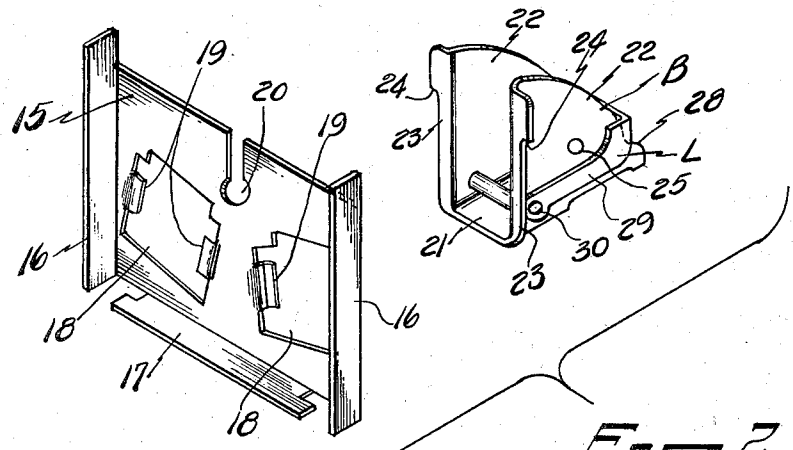


Fig. 2

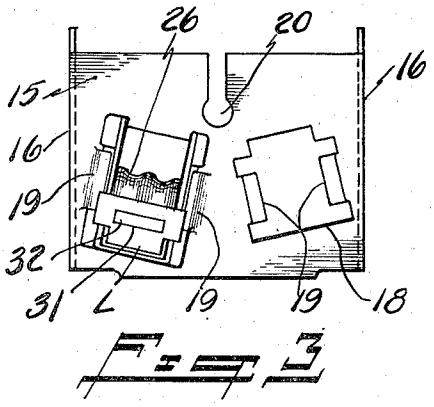


Fig. 3

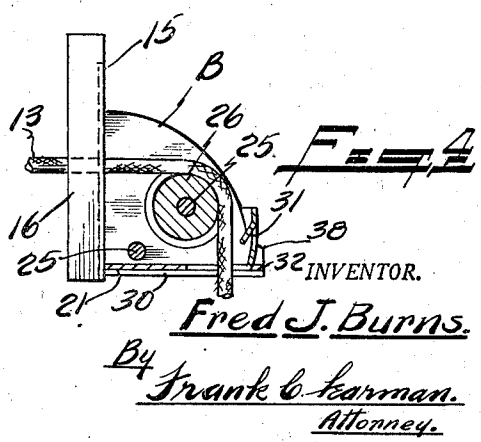


Fig. 4

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CORD LOCK AND BRACKET

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8 Claims. (Cl. 160—173)

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This invention relates to Venetian blinds, and more particularly to the automatic cord lock for locking and unlocking the slat elevating and supporting cords of such structures.

One of the prime objects of the invention is to provide an automatic cord lock and supporting bracket, said bracket being designed to permit the cord lock to be mounted to suit either right or left hand blinds.

Another object is to design a bracket on which the cord lock unit proper can be detachably mounted, and which also serves as a blind tilt shaft support.

A further object is to provide an automatic cord lock and bracket mounting formed of stampings, which can be assembled by a workman on a workbench as a unit, so that it can be easily and quickly mounted in the head box of a blind.

A further object still is to provide a bracket provided with means engageable by the cord lock unit for detachably, yet securely, mounting it in position.

Still a further object is to provide an automatic cord lock and bracket formed largely of stampings, which is composed of few parts, all of simple and rugged construction, and which can be economically manufactured, assembled, and mounted.

While the preferred form of the invention is disclosed herein for the purpose of illustration, it should be understood that various changes may be made in the structure without departing from the spirit and scope of the invention as hereinafter set forth and claimed.

In the drawing:

Fig. 1 is a fragmentary, part-sectional, front-elevational view of a Venetian blind head box showing my bracket and automatic cord lock unit in position thereon.

Fig. 2 is a perspective view of the bracket and cord lock.

Fig. 3 is an end-elevational view showing the automatic cord lock assembled on the bracket.

Fig. 4 is a front-elevational view, the housing being broken away to show the latch.

Referring more in detail to the drawing; the embodiment selected to illustrate the invention is shown in connection with the head box 8 of a Venetian blind which is mounted on suitable brackets (not shown) provided in a window opening.

The blind operating mechanism includes a tilt shaft 9 having enlarged drums 10 mounted thereon, ladder tape 11 being secured to said

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drum, and this tape depends through openings 12 provided in the bottom of the box, this ladder tape supporting a plurality of blind slats (not shown) in the usual manner.

The lifting cords 13 are connected to the bottom rail (not shown) of the blind as usual; thence leading upwardly through suitable openings provided in the head box; thence being trained over sheaves 14 which are mounted therein; and thence the cord leads through the automatic cord lock "B" in a manner to be hereinafter described.

The bracket plate 15 is mounted transversely of the head box and is preferably formed of a stamping, the two sides and bottom edges being flanged as shown at 16 and 17 respectively, and this flanged bracket snugly fits the head box and can be secured in position in any approved manner.

A pair of angularly disposed openings 18 are formed in the bracket plate 15 to accommodate the lift cords 13, and outwardly projecting guides 19 are provided on the vertical marginal edges of each opening for detachable engagement with the cord lock housing "B," the upper edge of the plate being shaped to form a keyhole-shaped open bearing 20 for releasably supporting one end of the tilt shaft 9 therein.

The main body of the cord lock comprises the housing "B" having bottom and spaced-apart side walls 21 and 22 respectively, the vertical edges of the side walls being turned to form flanges 23, shouldered as at 24 to form stops, these flanges being slidably received between the guides 19, the stops 24 limiting downward movement of the unit.

The unit can be easily and quickly mounted and/or removed, or can be shifted to the opposite angularly disposed position on the bracket, when necessary and desired.

A transversely disposed pin 25 spans the housing side walls 22, and a grooved roller member 26 is journaled thereon and over which the lifting cords are trained; thence the cords lead downwardly through individual openings 27 provided in the bottom wall of the housing.

The upper edges of the side walls 22 are curved as shown, and projecting shoulder portions 28 are formed integral therewith at a point directly above the bottom wall to limit the downward swing of the latch member "L," said member being formed with legs 29 pivotally connected to a pin 30 that spans said side walls.

The front end of the latch is yoke-shaped and swings over the curved walls; it is punched as at 31 to form an inwardly inclined tooth 32 for en-

gaging and wedging the lift cord between the roller 26 and the tooth 32 of the latch, and when the free hanging section of the lifting cords are swung outwardly in a direction away from the end of the head box, the pull on the cord, due to the weight of the slats, swings the latch upwardly, wedging the cords firmly between the latch and the roller, and holding them until released by a downward pull on the lift cords.

When the lifting cords are pulled down and swung inward beneath the head box, the latch drops onto the shouldered portion 28 of the housing and the cord is free to raise or lower the slats as desired.

A rib 33 separates the cord openings 27 and prevents twisting, tangling, or overriding of the lifting cords.

The cord lock can be very quickly mounted or removed, and the fact that it can be mounted in either position on the same bracket makes for economy of manufacture and assembly.

From the foregoing description, it will be obvious that I have perfected a very simple, practical and inexpensive cord lock and bracket for Venetian blinds.

What I claim is:

1. A cord lock mechanism for Venetian blinds comprising a bracket adapted to span and be securely mounted in a head box, a plurality of pairs of spaced-apart securing members on said bracket, and a cord lock unit engageable with said securing members and shiftable to position for either right or left hand blind operation.

2. A cord lock unit for Venetian blinds comprising a bracket plate adapted to be mounted in a head box and having spaced-apart lift cord accommodating openings therein, and a quickly detachable cord lock unit adapted to be mounted on said bracket in alignment with a selected opening for either right or left hand blind operation.

3. A cord lock mechanism for Venetian blinds comprising a bracket plate formed with spaced-apart angularly disposed openings therein, and a cord lock unit mounted on said bracket and shiftable into position and alignment with either of said openings to accommodate the cords for either right or left hand blind operation.

4. A cord locking mechanism for Venetian blinds comprising a bracket plate adapted to be secured in and mounted transversely of a head box, and having spaced-apart oppositely disposed openings therein, guides on the marginal edges of each individual opening, and a quickly removable cord lock unit engageable with either pair of guides.

5. An article of manufacture comprising a stamped bracket plate provided with spaced-apart cord accommodating openings therein, guides on the opposed marginal edges of each opening, an open bearing in the upper portion of the bracket, for releasably accommodating a tilt shaft, and a quickly shiftable cord lock unit engageable with either pair of guides for either right or left hand blind operation.

6. A cord locking mechanism for Venetian blinds comprising a bracket adapted to be mounted in a head box, and having spaced-apart angularly disposed openings therein, guiding members on the marginal edges of each opening, a quickly detachable cord lock unit engageable with either pair of guiding members to position the unit for either right or left hand blind operation, and an open bearing in the upper edge of said bracket.

7. An automatic cord lock unit for Venetian blinds comprising a bracket formed with spaced-apart cord accommodating openings therein, guides formed on the marginal edges of said openings, a flanged cord lock unit releasably engageable with said guides and shiftable for mounting in alignment with either of said openings, and stops for limiting the movement of said cord lock unit in said guides.

8. A cord locking unit for Venetian blinds comprising a bracket plate having an open bearing in the upper portion thereof to releasably accommodate a tilt shaft, said plate having angularly disposed spaced-apart openings formed in the face of the bracket, guides on the opposed marginal edges of said openings, and a cord lock unit formed with flanges on one end thereof and engageable with said guides for releasably securing said cord lock unit in position.

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