

June 2, 1942.

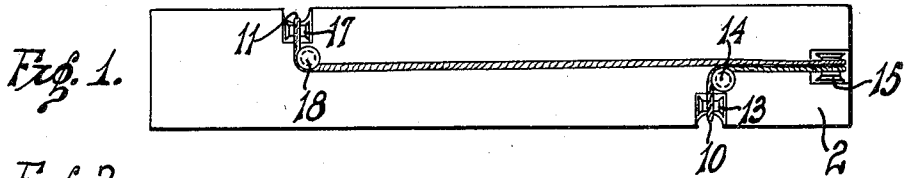
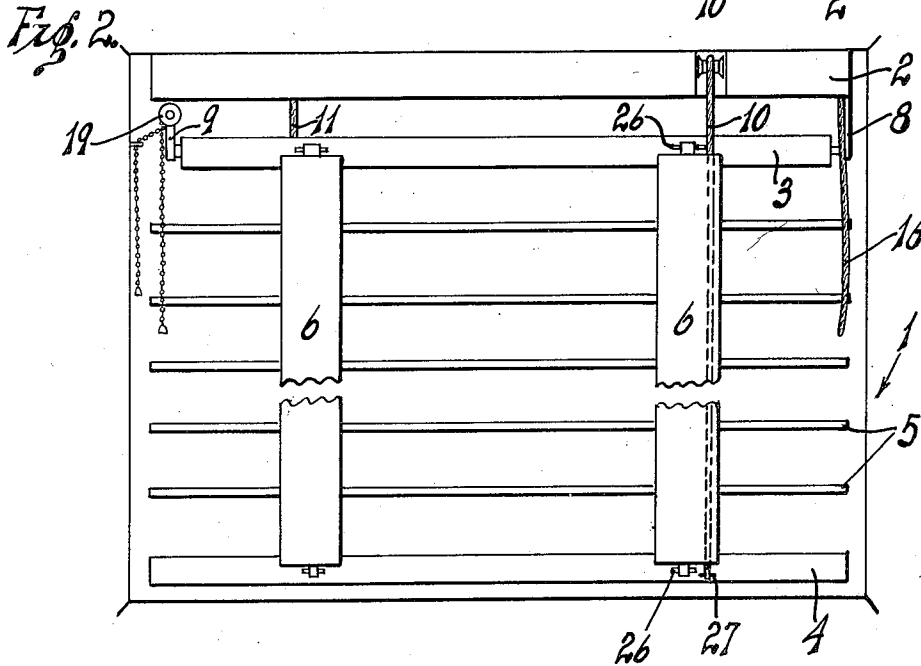
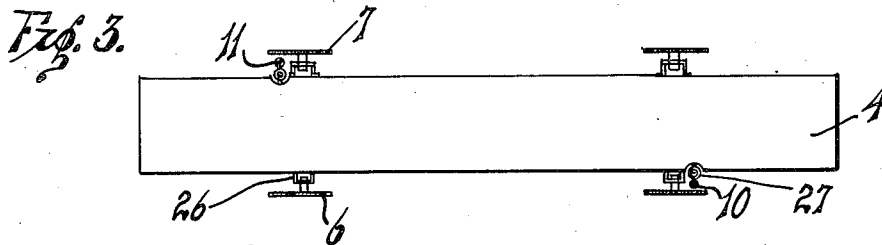
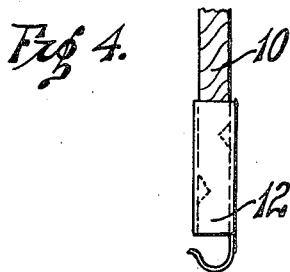
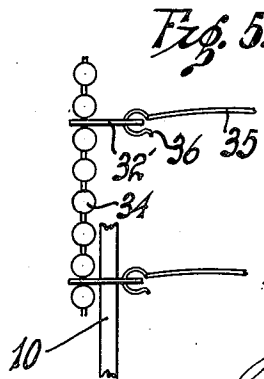
C. JUDELS ET AL

2,285,033

VENETIAN BLIND

Filed Nov. 30, 1940

2 Sheets-Sheet 1



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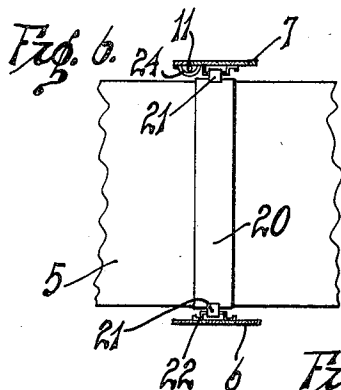
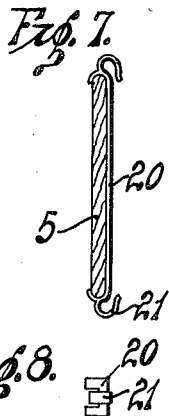
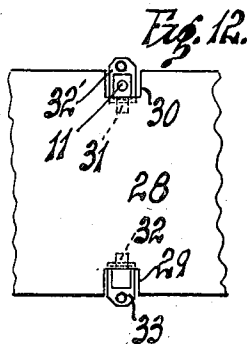
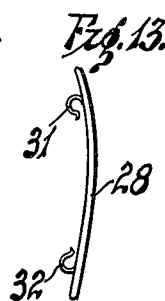
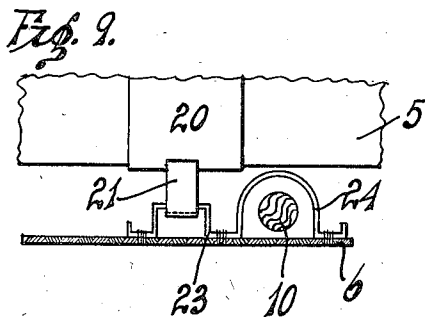
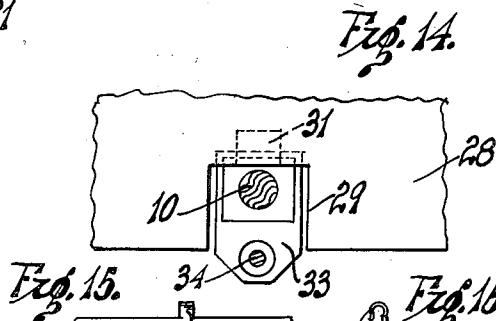
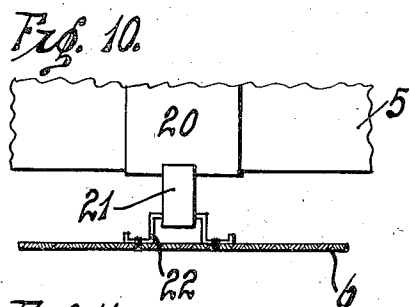
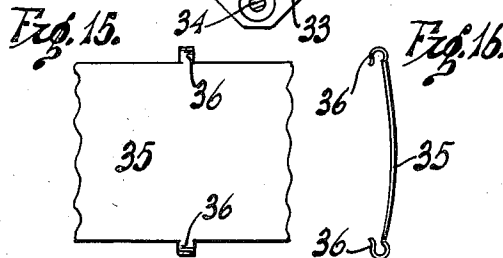
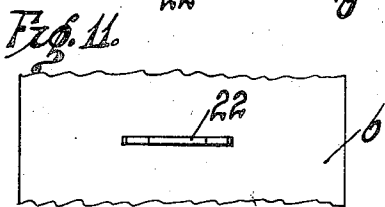
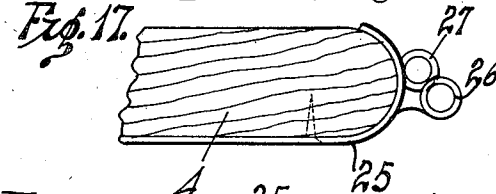
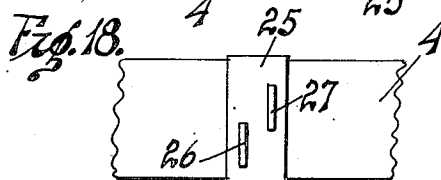
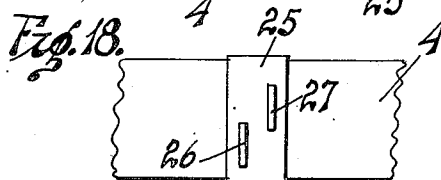
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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,285,033

## VENETIAN BLIND

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Application November 30, 1940, Serial No. 367,994

5 Claims. (Cl. 156—17)

This invention relates to a Venetian blind, and the purpose of our invention is to provide a Venetian blind construction which is simple to manufacture, effective in operation, and which can be more readily raised or lowered than Venetian blinds heretofore constructed.

An object of our invention is to provide a novel Venetian blind, requiring but two lift cords, these lift cords also serving to keep the spaced slats in alignment; that is, preventing the slats from shifting or moving horizontally.

Another object of our invention is to provide a novel Venetian blind including an improved slat construction, the individual slats being releasable from the tapes, and thus replaceable, for purposes of repair or cleaning.

Another object of our invention is to provide a novel Venetian blind in which a ball chain may be used for the spacing tape, if desired.

The objects, advantages and features of the invention may appear from the accompanying drawings, the subjoined detailed description, or the appended claims.

In the drawings:

Figure 1 is a top plan view of the header board.

Figure 2 is a front elevation of our blind.

Figure 3 is a transverse sectional view of our blind, showing the lift slat.

Figure 4 is a side elevation of the lift cord, and the bottom hook thereon.

Figure 5 is a fragmentary side elevation of the ball chain type of spacing tape.

Figure 6 is a fragmentary bottom plan view of one of these slats.

Figure 7 is a transverse sectional view of the same.

Figure 8 is an end view of the metal clip.

Figure 9 is a fragmentary plan view on an enlarged scale of one of the slats.

Figure 10 is a fragmentary plan view of one of the slats showing a type of hook on the spacing tape.

Figure 11 is a fragmentary plan view of one of the tapes.

Figure 12 is a fragmentary plan view of a metal slat.

Figure 13 is an end view of same.

Figure 14 is a fragmentary plan view of a metal slat on an enlarged scale.

Figure 15 is a fragmentary plan view of another type of metal slat.

Figure 16 is an end view of the same.

Figure 17 is a fragmentary transverse sectional view of the lift slat.

Figure 18 is a fragmentary side elevation of the same.

Referring more particularly to the drawings, our Venetian blind 1 consists of a header board 2, the tilt slat 3, tiltably mounted below the

header board; a lift slat 4 and a plurality of spaced slats 5 arranged between the tilt slat and the lift slat. This arrangement being usual and well known.

Two or more spacing tapes 6 are arranged on the front of the blind, and two or more spacing tapes 7 are arranged on the back of the blind. This arrangement of tapes again being usual and well known.

The slats 5 are releasably attached to the tapes 6 and 7, as will be further described. The tilt slat 3 is pivotally mounted on arms 8 and 9 which depend from the header board 2. A pair of lift cords 10 and 11 extend vertically at the front and rear of the Venetian blind; the lift cord 10 being adjacent one end of the Venetian blind in front, while the lift cord 11 is adjacent the other end of the blind in rear.

The cords 10 and 11 are each releasably attached to the lift slat 4, by means of a hook, or the like, as shown at 12. The cord 10 extends upwardly to the header board 2, passes over rollers 13 and 14, thence over an end roller 15, and then downwardly to form the pull cord 16. The cord 11 similarly passes upwardly, thence over the pulleys 17 and 18, thence over the pulley 15, and then downwardly to complete the pull cord 16.

It will be evident that the Venetian blind can thus be raised or lowered by manipulating the pull cord 16, and it is to be noted that the lift cord 10 and 11 are on the outside of the slats, and do not pass through them, thus the slats are strengthened, and the blind can be raised or lowered without friction or hindrance, and without binding, and without fraying or wearing out the cord and tape, as would be the case if the lift cord 10 and 11 pass through holes in the slats.

The blind can also be raised or lowered, even though the slats 5 may be tilted. The mechanism 19 for tilting the slat 3 is usual and well known.

The Figures 6 to 10, inclusive, wooden slats are shown, each of which metal clips 20 are attached, one adjacent each end of the slat.

The clips 20 are preferably metal, and are provided with a hook 21 at each end, the hook being integrally formed as a part of the clip; metallic loops or eyes 22 are stitched or otherwise fastened to the tapes 6 and 7, and the hooks 21 engage these eyes to removably mount the slats in position on the tapes.

To accommodate the lift cord 10 and 11 the eyes are modified as shown in Figures 6 and 9; that is, the eyes 23 are provided with a loop 24 through which the lift cords 10 or 11 pass. Thus it will be evident that the slats are prevented from shifting horizontally, and are held in proper alignment. A loop 24 is provided adjacent

each of the slats, and the lift cords 10 or 11 pass through them substantially as shown. The lift slat 4 may be provided with a band 25, which is fixedly attached to said slat, and this band is provided with eyes 26 and 27 to receive the hooks on the bottom of the tapes and the end of the lift cords.

In Figures 12 to 16, inclusive, metal slats are shown, the slats 28 being provided with notches 29 on the front edge, and notches 30 on the rear edge, as a result of hooks 31 and 32 being formed. Hooks 31 are provided on the front edge of each of the slats, and hooks 32 are provided on the rear edge of the slats. These hooks engage clips 32' or 33, respectively. The clips 32' and 33 enter the notches 29 and 30 substantially as shown, thus placing the spacing tape (or ball chain) close to the slats. Instead of a cloth tape as shown at 6 or 7, a ball chain 34 may be used, and the clips 32' and 33 are fixedly attached to the ball chains in a suitable manner. The clips are also provided with a suitable opening through which the lift cords 10 and 11 pass.

If desired, the lift cord may also be formed of a ball chain.

In Figures 15 and 16 the metal slat 35 is provided with hooks 36 at the outer edges, which hook into the clips 32' or 33, or into eyes 22, substantially as shown.

Having described our invention we claim:

1. A Venetian blind including in combination a plurality of slats, collapsible means holding said slats in spaced parallel relation, a header board, a tilt slat tiltably suspended from the header board, said slats being suspended from the tilt slat, a lift slat at the lower end of said slats, a pair of lift cords, one of said lift cords being attached to the front of the lift slat adjacent one end of the lift slat and extending vertically to the header board, the second lift cord being attached to the rear of the lift slat and adjacent the other end of the lift slat and extending vertically to the header board, a pull cord, said lift cords extending horizontally in the header board to the pull cord, a plurality of eyes on the collapsible means, said eyes being vertically spaced on the collapsible means, hooks fixedly mounted on the slats and releasably engaging the eyes to removably mount the slats in position, and loops mounted on the collapsible means adjacent each of the slats and in vertically spaced relation, said lift cords extending through the loops.

2. A Venetian blind including a plurality of slats, a collapsible tape holding said slats in spaced parallel relation, eyes attached to the tape in spaced vertical relation, said slats having hooks fixedly formed thereon, said hooks releasably engaging the eyes to removably mount the slats in position, a lift slat at the bottom of said slats, a pair of lift cords, one of said lift cords being attached to the front of the lift slat adjacent one end of the lift slat and extending vertically to the header board at the front of the blind, the second lift cord being attached to the rear of the lift slat and adjacent the other end of the lift slat and extending vertically to the header board at the rear of the blind, a hook on the lower end of the lift cords, said hooks releasably engaging the lift slat of the blind.

3. A Venetian blind including a plurality of

slats, a collapsible tape holding said slats in spaced parallel relation, eyes attached to the tape in spaced vertical relation, said slats having hooks formed thereon, said hooks releasably engaging the eyes to removably mount the slats in position, a lift slat at the bottom of said slats, a pair of lift cords, one of said lift cords being attached to the front of the lift slat adjacent one end of the lift slat and extending vertically to the header board at the front of the blind, the second lift cord being attached to the rear of the lift slat and adjacent the other end of the lift slat and extending vertically to the header board at the rear of the blind, a hook on the lower end of the lift cords, said hooks releasably engaging the lift slat of the blind, and guide means embodied in each of the eyes, the lift cords extending through said guide means.

4. A Venetian blind including a plurality of slats, a collapsible tape holding said slats in spaced parallel relation, eyes attached to the tape in spaced vertical relation, said slats having hooks fixedly formed thereon, said hooks releasably engaging the eyes to removably mount the slats in position, a lift slat at the bottom of said slats, a pair of lift cords, one of said lift cords being attached to the front of the lift slat adjacent one end of the lift slat and extending vertically to the header board at the front of the blind, the second lift cord being attached to the rear of the lift slat and adjacent the other end of the lift slat and extending vertically to the header board at the rear of the blind, a hook on the lower end of the lift cords, said hooks releasably engaging the lift slat of the blind, attachments on the upper end of the collapsible means whereby said collapsible means are releasably supported from the tilt slat at the top thereof, attachments on the lower end of the collapsible means whereby said collapsible means are releasably fastened to the lift slat at the bottom of the blind.

5. A Venetian blind including a plurality of slats, a collapsible tape holding said slats in spaced parallel relation, eyes attached to the tape in spaced vertical relation, said slats having hooks fixedly formed thereon, said hooks releasably engaging the eyes to removably mount the slats in position, a lift slat at the bottom of said slats, a pair of lift cords, one of said lift cords being attached to the front of the lift slat adjacent one end of the lift slat and extending vertically to the header board at the front of the blind, the second lift cord being attached to the rear of the lift slat and adjacent the other end of the lift slat and extending vertically to the header board at the rear of the blind, a hook on the lower end of the lift cords, said hooks releasably engaging the lift slat of the blind, and guide means embodied in each of the eyes, the lift cords extending through said guide means, attachments on the upper end of the collapsible means whereby said collapsible means are releasably supported from the tilt slat at the top thereof, attachments on the lower end of the collapsible means whereby said collapsible means are releasably fastened to the lift slat at the bottom of the blind.

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