Dec. 8, 1942. F. J. BURNS 2,304,534

VENETIAN BLIND

Filed Feb. 28, 1942

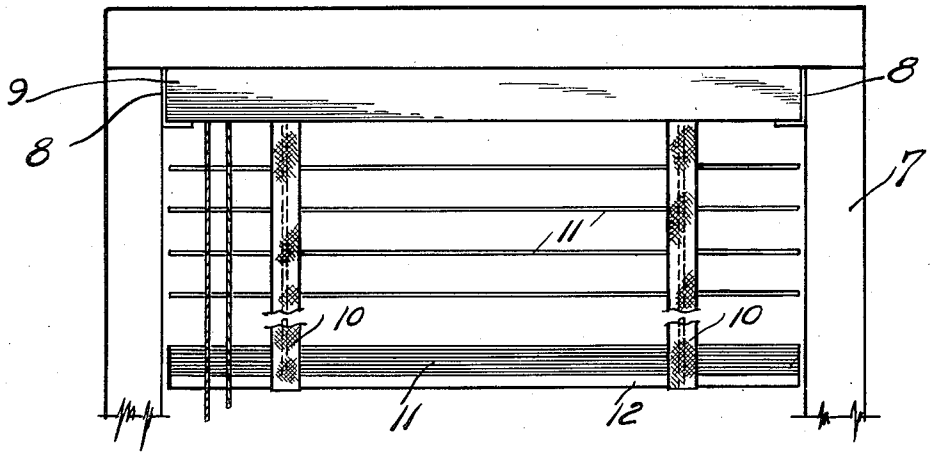


Fig. 1

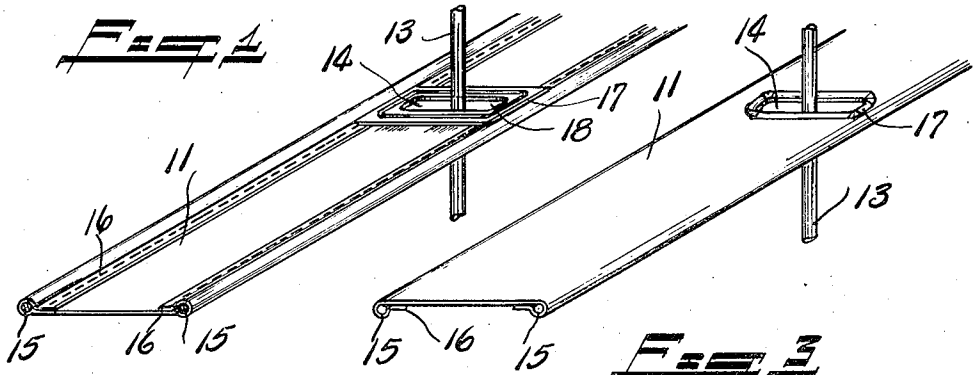


Fig. 2

Fig. 3

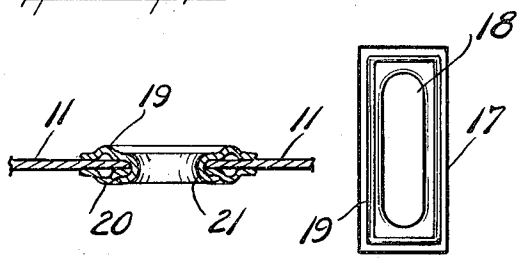


Fig. 6

Fig. 4

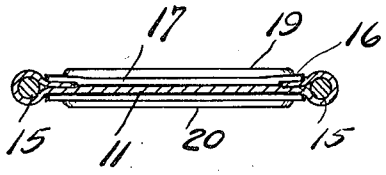


Fig. 5

INVENTOR.
Fred J. Burns.
BY
Frank C Searman.
Attorney

Patented Dec. 8, 1942 2,304,534

UNITED STATES PATENT OFFICE

2,304,534

VENETIAN BLIND

Fred J. Burns, Saginaw, Mich., assignor to The Columbia Mills, Inc., New York, N. Y., a corporation of New York

Application February 28, 1942, Serial No. 432,805

4 Claims. (Cl. 160—178)

This invention relates to Venetian blinds and more especially to blinds provided with reinforced fabric slats.

One of the prime objects of the invention is to design a reinforced fabric slat provided with grommets having openings which accommodate the lift cords, and cooperate with the edge stiffening members to reinforce the slat proper.

Another object of the invention is to provide a reinforced slat which can be made up of relatively light, thin fabric or other material, suitably reinforced by means of stiffening strips disposed along the longitudinal edges of the slat and cooperating with the transversely disposed grommet members.

A further object is to provide a reinforced fabric slat so constructed that the slats will be very thin, which can be economically produced and in which the usual number of slats used in a complete blind can be packed in a very small compact bundle.

A still further object is to provide a slat having continuous edge stiffeners and transversely disposed grommet plates interposed between and bearing against the stiffeners, said plates being formed with ribs disposed at right angles to the stiffeners when the slat is assembled, thus permitting openings in the grommet and better closing of the slats.

A further object still is to provide a slat including a grommet which is highly ornamental, and which is readily adaptable to mass production.

The invention possesses other objects and features, some of which, together with the foregoing, will be set forth in detail in the specification hereunto annexed. It is to be understod that the invention is not to be limited to the specific form thereof shown and described, as various other embodiments thereof may be employed within the scope of the appended claims.

In the drawing:

Fig. 1 is a view of a window showing a Venetian blind mounted in place;

Fig. 2 is a fragmentary perspective view of a fabric slat;

Fig. 3 is a view similar to Fig. 2 and showing the opposite side of the slat;

Fig. 4 is a face view of one of the grommet members;

Fig. 5 is an enlarged transverse sectional view through the slat and showing an alternate construction in which a grommet is provided on both sides of the slat; and

Fig. 6 is also an enlarged transverse sectional view of the grommet arrangement shown in Fig. 5.

Referring to the drawing in which I have shown one embodiment of my invention, the conventional window frame is indicated at 7, and end brackets 8 are mounted thereon and support a head box 9 in which the blind actuating mechanism is mounted, ladder tapes 10 depending from the head box and carrying a plurality of slats 11 as usual. A bottom rail 12 forms a part of the slat assembly and lift cords 13 are anchored thereto and lead upwardly through elongated openings 14 provided in the slats. These slats are formed of a suitable fabric which does not have sufficient rigidity to maintain itself in a flattened condition, either as to width or length; and I, therefore, find it necessary to provide continuous reinforcing strips 15 along the longitudinally disposed edges of each slat, the fabric being folded thereover as at 16 and is then sewed or glued in position so that the strips are held against displacement.

The transversely disposed reinforcing means is in the form of a grommet plate 17. This is preferably a stamping formed with a centrally disposed elongated opening 18, the metal around the marginal edge of this opening being folded over (see Fig. 3 of the drawing) to clinch the fabric therebetween. The grommet structure 17 spans the slat and is relatively wide, the ends engaging and bearing against the inner edges of the metallic edging strips or reinforcing members 15 to effectively brace and stiffen the body of the slat in a transverse direction.

A continuous raised rib 19 is provided in the grommet plate adjacent the outer edges thereof, the ribs being disposed at right angles to the stiffening members so that the openings 14 can be relatively long, amply accommodating the lift cords and insuring right closing of the blind when the slats are tilted. It is of considerable importance to prevent light streaks between the slats when the blind is fully closed, and I wish to direct particular importance to the fact that the longitudinal edge reinforcing members are perfectly smooth, while the cooperating grommet plates are disposed entirely within the upper and lower marginal limits of the slat, and there are no humps or engaging members which result in raised portions which might prevent tight closing of the slats and consequently light streaks.

In Figs. 5 and 6 of the drawing I have shown a slightly modified construction in which a second plate 20 is provided on the lower face of the slat. This grommet is formed exactly the same as the

member 17, excepting that the cord opening is slightly larger than the opening 18 so that the overlapping edge of this member folds over the marginal edge of the opening 18. With this construction both sides of the slat are exactly the same in appearance and the construction will, of course, be more rigid, the principle is however exactly the same.

It will be obvious that changes may be made in the form, construction, and arrangements of the parts without departing from the spirit of the invention, or sacrificing any of the advantages thereof, and the right is reserved to make all such changes as fall within the scope of the claims.

What I claim is:

1. A slat for a Venetian blind comprising a strip of flexible material, stiffening strips disposed along the longitudinal edges of the slat, openings in said slats permitting passage of the lift cords, grommet elements surrounding said openings and extending across the width of the slat with the ends of the grommet engaging and bearing against the inner edges of the encased stiffening strips.

2. A slat for a Venetian blind comprising a web of stiff fabric material provided with stiffening strips mounted in and reinforcing the longitudinal edges of the slat, spaced apart openings in the slat, and relatively wide grommet plates marginally surrounding said openings and spanning the width of the slat with the ends engaging and bearing against the inner edges of the fabric encased stiffening members.

3. A slat for a Venetian blind comprising a strip of flexible material, stiffening strips secured to the longitudinal edges of the slat for reinforcing it in a longitudinal direction, elongated openings in said material, a grommet plate disposed transversely of the slat and formed with an opening marginally surrounding the opening in the fabric, said plate being relatively wide and wedged between the fabric encased stiffening strips to form a reinforced flat structure of approximately the same or less thickness than the stiffening strips.

4. A slat for a Venetian blind comprising a strip of flexible fabric stiffening strips provided in the longitudinal edges of the slat, elongated transversely disposed openings in said material and accommodating the lift cords of the blind, cooperating grommet plates disposed transversely of the slat, and formed with openings marginally surrounding the opening in the fabric and interlocking with each other, ribs formed in the plates adjacent the outer marginal edges thereof, the end of said plates spanning the slat and bearing against the inner edges of the fabric encased stiffening members.

FRED J. BURNS.