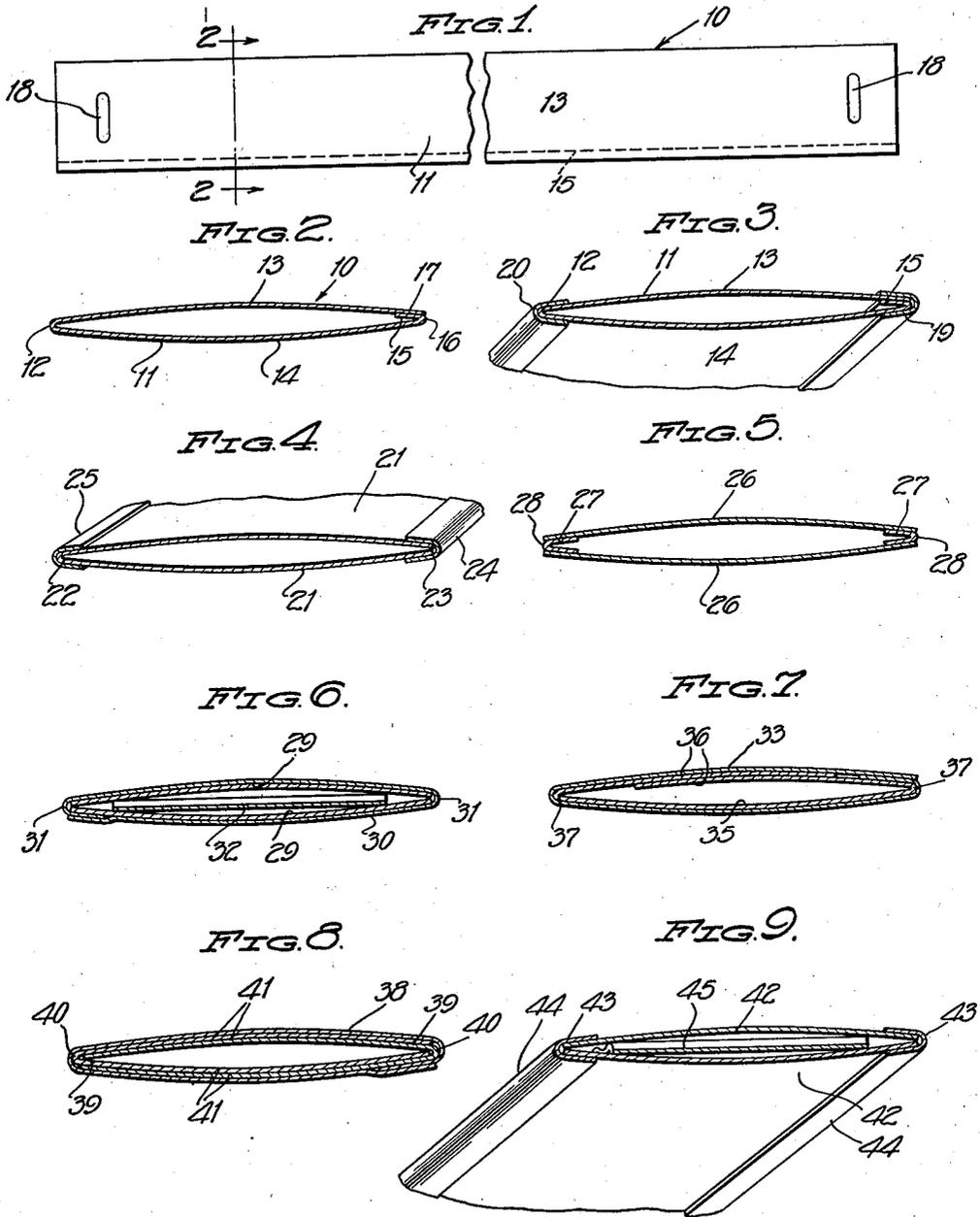


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VENETIAN BLIND SLAT

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## VENETIAN BLIND SLAT

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8 Claims. (Cl. 156—17)

This invention relates to improvements in Venetian blind slats.

It is the usual practice to construct Venetian blind slats of wood of a thickness to provide the necessary rigidity throughout the length thereof to avoid sagging when supported upon the ladder suspension tapes. The wooden blind slats require painting to meet the demand of various colors to suit the room furnishings of the users, and in view of the many slats which must be used in the making of a single Venetian blind, wooden slat blinds are expensive, and many prospective users of moderate means are therefore unable to equip the windows of their home with this attractive and popular style of window blind. It is therefore one of the main objects of this invention to provide a Venetian blind slat which is constructed of an inexpensive flexible material made sufficiently rigid to be self supporting to avoid sagging; which does not require painting, and which may be made in various colors or designs to suit the artistic requirements of a user.

Another feature of the invention resides in a Venetian blind slat which is constructed of a relatively thin stiff but flexible material such as fibre (paper or cardboard) or sized fabric, the same being of flat tubular shape in cross section with the opposite side walls bulged or arched outwardly to impart the necessary rigidity to the slat throughout the length thereof.

Another feature of the invention is the provision of a Venetian blind slat constructed of fibre or fabric which is relatively flat and tubular in cross section, and in which the inherent spring action of the rolled fold edges of the slat imparts an outward bulging or arching of the side walls thereof.

A still further feature of the invention is to provide an inexpensive Venetian blind slat which will not warp by reason of atmospheric changes, and which may be disposed of if soiled or damaged, by replacing the same at no great expense to the user of a Venetian blind equipped with this improved slat.

Other features of the invention will become apparent as the specification is read in conjunction with the accompanying drawing, in which,

Figure 1 is a top plan view of one form of my improved Venetian blind slat.

Figure 2 is an enlarged vertical transverse sectional view on the line 2—2 of Figure 1.

Figure 3 is a sectional perspective view of a construction similar to that shown in Figures 1 and 2 but showing decorative reinforcing strips

extending along the longitudinal edges of the slat.

Figure 4 is a sectional perspective view of a slightly modified form of the invention.

Figures 5, 6, 7, and 8, are vertical transverse sectional views of several other modified forms of the invention.

Figure 9 is a sectional perspective view of a still further modification.

Referring to the drawing by reference characters, and at present to the form of the invention shown in Figures 1 to 3 inclusive, the numeral 10 designates a Venetian blind slat in its entirety and which is constructed in accordance with one specific form of my invention. The slat 10 comprises a flat tubular rectangular shaped envelope body 11 of any desired length to suit the side of the window on which a Venetian blind made of the slats 10 is adapted to be installed. The body 11 is constructed of a single blank of stiff but flexible paper, sized fabric or the like, the said blank being of a width slightly larger than twice the width of the slat body, the said blank being folded longitudinally to one side of its longitudinal center as at 12 to provide a pair of opposite side walls 13 and 14. The wall 14 has a longitudinal attaching flap 15 folded inwardly thereover on the longitudinal fold 16 which lies inwardly against the wall 13 adjacent the free longitudinal edge thereof. The outer side of the flap 15 is adhesively secured to the inner lapping surface of the wall 13 as at 17, thus the walls 13 and 14 are connected together along their longitudinal edges. The folds 12 and 16 are rolled folds and the inherent springy action of the material from which the slat is constructed causes the walls 13 and 14 to bulge or arch outwardly which increases the rigidity of the slat body 11 sufficient to support itself without sagging when the slat 10 is in use in position upon the ladder tapes of a Venetian blind structure. The slat body 11 is provided with transversely extending elongated slots 18 adjacent the ends thereof for the passage of the hoisting cords of a Venetian blind structure.

In Figure 3 of the drawing, the same construction as that just described is shown with the exception that instead of gluing the flap 15 to the wall 13, the free longitudinal edges of the walls 13 and 14 are fastened together by a strip of gum tape 19 folded over the outer surfaces of the walls 13 and 14. The rolled folds 12 and 16 act to bulge the side walls as previously explained. In order to balance the appearance of the slat, the other longitudinal edge of the slat

body is likewise bound by a strip of gum tape 20. The binding tapes 19 and 20 may be of the same color, or a contrasting color than the body 11 to impart a decorative appearance to the slat.

In Figure 4 of the drawing, the blank of flexible material from which the slat body is constructed is folded on its longitudinal center to provide identical side walls 21—21 connected along a longitudinal rolled fold 22. The longitudinal free edges of the walls 21 are connected by a strip of gum tape 23 folded on its longitudinal center to lap the walls 21 and which is provided with a springy rolled fold 24 which coacts with the rolled fold 22 to impart the desired outward arching of the side walls 21. A gum strip 25 binds the rolled fold 22 to give a balanced effect to the slat.

In Figure 5 of the drawing the body of the slat is constructed of two identical side wall strips 26—26 of flexible material joined together at their longitudinal edges by strips of gum tape 27—27 folded upon themselves and secured to the inner sides of the strips 26. The rolled fold edges 28 of the strips of folded gum tape impart the necessary spring action to cause the side walls 26 of the slat body to bulge inward and provide the desired rigidity to the slat.

In Figure 6 of the drawing, a further modified form of slat construction is illustrated in which the slat body comprises a pair of identical paper strips 29—29 enclosed within a fabric outer flat tubular envelope covering 30. The envelope covering 30 may be of any desired fabric such as that from which shade curtains are made and may be of any color. Whereas the longitudinal side folds 31—31 may have a slight tendency to arch the walls of the envelope covering and inner strips 29 outwardly, this arching is made positive by the insertion of a corrugated paper filler strip 32 between the strips 29 and which filler strip also imparts added rigidity to the slat.

In Figure 7 a still further modification of the invention is illustrated in which the slat body includes an outer flat tubular fabric covering 33 into which a paper or cardboard filler and spreader member 34 is inserted. The member 34 includes a continuous side wall 35 and unfolded loose overlapping flaps 36—36 folded on the longitudinal rolled folds 37. The folds 37 impart an outward spread of the flaps 36 and an outward bulge or arch to the wall 35 which spreading of the flaps and bulging imparts an outward arching to be imparted to the envelope covering 33. The outer covering 33 is constructed in the same manner as the slat body 11 but being of fabric instead of stiff but flexible cardboard, it requires a filler insert to render the same sufficiently rigid to be self sustaining.

In Figure 8 of the drawing I provide a flat tubular outer fabric covering 38 similar to that shown at 33 in the preceding figure which encloses two separate filler and arching members 39. Each member 39 is constructed of a single blank of cardboard folded along its longitudinal center to provide a rolled fold 40 and a pair of flaps 41. The members 39 are arranged in reverse fashion with the flaps 41 of one member interfitting and lapping the flaps 41 of the other member. The rolled folds 40 of the members 39 impart the spring action for spreading the flaps 41 outwardly and thereby impart an outward bulge to the opposite sides of the flat tubular envelope covering 38.

The form of the invention shown in Figure 9 of the drawing resembles somewhat the construc-

tion shown in Figure 5, in that the body of the slat is composed of two like paper strips 42—42 arranged one over the other, but in this embodiment, the binding gum tapes 43—43 overlap the outer sides of the strips 42 and are adhesively secured thereto. Whereas the rolled folds 44 of the gum tapes may have a tendency to cause the strips 42 to arch or bulge outwardly, this offset is assured by the insertion of a corrugated cardboard filler strip 45 between the strips 42.

While I have shown and described several variations of the invention, it will be noted that in each instance the structure includes a relatively flat tubular slat body constructed of flexible material which in itself is incapable of being self supporting, but which is made sufficiently rigid and self supporting throughout its length by arching or outward bulging the opposite side walls of the slat body.

Heretofore, I have mentioned that the flat tubular slat body is constructed by folding the blank material upon itself, but I wish it to be understood that in the course of manufacture it might be found more practical to first form the body in round tubular or cylindrical shape and then impart a flattening action to the tubular body structure. Such method will produce the same result as that hereinbefore described.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A Venetian blind slat comprising a substantially flat tubular slat body constructed of flexible material having its opposed side walls arched outwardly from one longitudinal edge to the other to cause said body to be self supporting throughout its length.

2. A Venetian blind slat comprising a relatively flat envelope slat body constructed of flexible material, and folded means along the longitudinal edges of said slat body acting upon the opposed side walls of said envelope slat body to cause the same to arch outwardly to impart rigidity to said slat body throughout the length thereof.

3. A Venetian blind slat comprising a substantially flat slat body constructed of a flexible material whose inherent characteristics is incapable of being self supporting, and folded means along the longitudinal edges of said slat body for causing the opposite side walls of said slat body to flexibly arch outwardly from one longitudinal edge of said body to the other longitudinal edge thereof.

4. A Venetian blind slat comprising a single elongated blank of flexible material folded upon itself, and folded means connecting the free edges of the folded blank together to provide a substantially flat tubular slat body, the inherent outward spring action of the fold of said blank of material and said folded connecting means imparting an outward bulging to the opposed folds of said folded material to render said slat body rigid throughout its length.

5. A Venetian blind slat comprising a single elongated blank of flexible material folded longitudinally upon itself, and a strip of tape folded over the free longitudinal edges of said blank and adhesively secured thereto to provide a relatively flat tubular slat body, the spring action of the fold of said blank and the fold of said tape co-acting to impart an outward transverse bulge to the slat body to make the same rigid.

6. A Venetian blind slat comprising a pair of superposed normally flat flexible body strips of

like size, flexible folded connecting strips adhesively secured to said body strips along their longitudinal edges, the inherent spring action of said folded connecting strips imparting an outward transverse bulge to said body strips to provide a substantially rigid flat tubular slat body.

5 7. A Venetian blind slat comprising a slat body constructed of flexible fibrous material which is substantially flat tubular shape in cross section, and folds along the longitudinal edges of said 10 body for causing the opposed side walls of said body to arch outwardly.

8. A Venetian blind slat comprising an elongated blank of flexible fibrous material composed of one or more plie which is folded longitudinally upon itself to provide a pair of opposed side walls, and folded means connecting the free longitudinal edges of the folded blank together to provide a substantially flat tubular slat body, the inherent outward spring action of the fold of said blank of material and said folded connecting means imparting an outward bulging to the opposed folds of said folded material to render said 10 slat body rigid throughout its length.

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