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T. MIAO

2,603,286

VENETIAN BLIND SLAT

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Fig. 1.

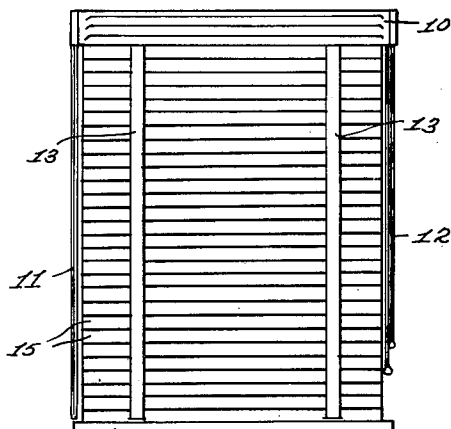


Fig. 2.

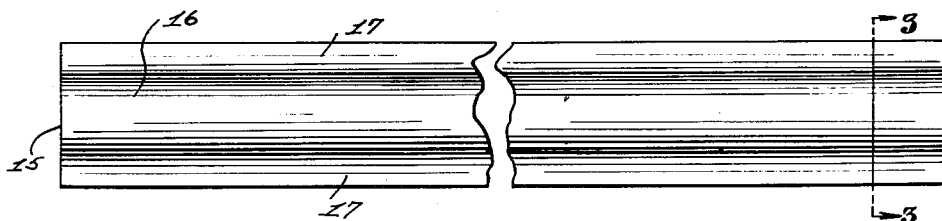


Fig. 3.

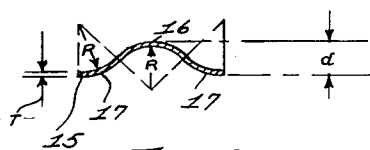


Fig. 5.

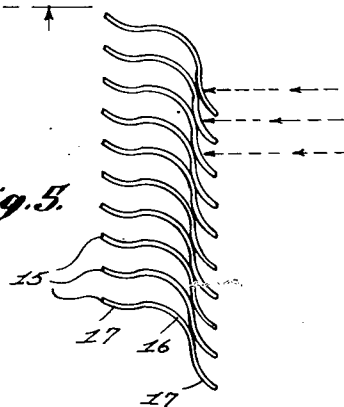
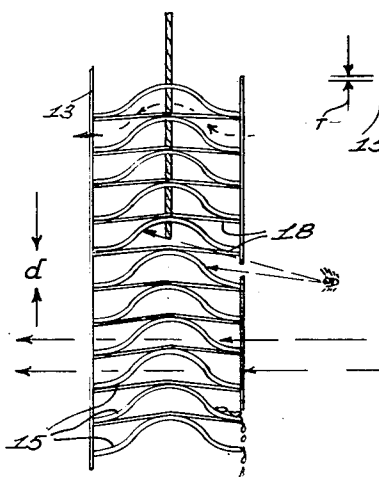


Fig. 4.



INVENTOR.

THOMAS MIAO

BY

McMorrow, Burman & Davidson
ATTORNEYS

UNITED STATES PATENT OFFICE

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VENETIAN BLIND SLAT

Thomas Miao, Shanghai, China

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1 Claim. (Cl. 160-178)

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This invention relates to slats for Venetian blinds or жалюзиs and more particularly to slats to be movably mounted by a supporting structure for controlling the passage of light and air through a blind including such slats.

It is among the objects of the invention to provide an improved blind or жалюзиs slat which will transmit diffused light at all times, but will obstruct vision through a blind including such slats whenever the blind is closed and will obstruct vision through a жалюзиs or similar structure in which the slats are fixedly mounted, which will permit a free passage of air therebetween and, when movably mounted in a blind, can be moved relative to each other to block such passage of air, which will obstruct the passage of precipitation through a blind or жалюзиs in which they are included, and which are simple and durable in construction, economical to manufacture, and easy to install.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing wherein:

Figure 1 is an elevational view of a Venetian blind including slats illustrative of the invention;

Figure 2 is a top plan view, on an enlarged scale, of one of the slats of the invention;

Figure 3 is a cross sectional view on the line 3-3 of Figure 2;

Figure 4 is an end elevation of a fragmentary portion of a Venetian blind including slats constructed in accordance with the invention; and

Figure 5 is an end elevation of associated slats showing the slats in a different position relative to each other from that illustrated in Figure 4.

With continued reference to the drawing, the Venetian blind illustrated in Figure 1 may be of well known construction having at its top a box or compartment including mechanism for raising and lowering and adjusting the blind, this mechanism being covered by a fascia board 10 and being operated by depending cords 11 and 12 disposed at respectively opposite sides of the blinds. Tape ladders 13 depend from the mechanism including compartment behind the fascia board 10 in spaced apart and substantially parallel relationship to each other and a bottom board 14 is secured to these ladders at the lower ends thereof. A plurality of slats 15 are carried by the ladders 13 between the bottom board 14 and the fascia board 10 in spaced apart and parallel relationship to each other.

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The bottom board 14 together with the slats 13 may be raised and lowered by one of the cords, for example, by the cord 11, and the ladders may be adjusted to vary the tilt or inclination of the slats 13 by the other cord 12.

As Venetian blind structures are generally old and well known to the art, a more detailed description of the slat supporting and adjusting structure is considered unnecessary for the purposes of the present disclosure. While the slats are illustrated in the accompanying drawing as being movably mounted in a Venetian blind structure, it is to be understood that they may be fixedly mounted in a suitable frame to provide жалюзиs or shutters without in any way exceeding the scope of the invention.

The slat of the present invention is particularly illustrated in Figures 2 and 3 and comprises an elongated, rectangular strip of sheet material which is thin in proportion to its width and narrow in proportion to its length and has substantially parallel longitudinal edges. This slat is formed of a translucent material, such as a suitable synthetic resin plastic, so that light will be transmitted therethrough, but vision will be obstructed. The material of the slats may be colored or tinted, if desired, and the surfaces of the slats may be ornamented in any desired manner.

Each slat has a corrugation 16 of partly circular cross sectional shape extending longitudinally thereof substantially symmetrical with the mid-width location of the slat. The radius of curvature of the corrugation 16 is slightly greater than one fourth the width of the slat and the corrugation is bordered on the convex side thereof by concavely curved marginal portions extending one along each side of the corrugation and having a radius of curvature substantially the same as the radius of curvature of the corrugation. The distance between a plane touching the concave surfaces of both marginal portions 17 and a plane parallel to the first mentioned plane and touching the convex surface of the corrugation 16 is substantially equal to the distance between adjacent tapes 18 of a slat supporting ladder 13, and is clearly illustrated in Figure 4.

With this arrangement, when the slats are in open position with the blind closed, as illustrated in Figure 4, a tortuous or sinuous passage is provided between each two adjacent slats. When the slats are in their open position, ventilating air may flow freely in either direction through the sinuous passages between adjacent slats, but vision through these spaces is obstructed

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by the intervening corrugation and marginal portions of the slats. At the same time, atmospheric precipitation, such as rain, striking the blind, will not pass through the spaces between the slats into a room protected by the blind, but will be deflected by the corrugated portions of the slats and drain off of the outer edges of the slats, as illustrated in Figure 4.

When the slats are adjusted to closed condition, as illustrated in Figure 5, the outer marginal portions of the slats contact the corrugated portions of adjacent slats providing a relatively tight closure between adjacent slats to obstruct the flow of air through the blind. The slats being formed of translucent material, light will be transmitted through the slats at all times. However, if it should be desired to obstruct the flow of light the slats may be formed of an opaque and nonreflective material and mounted in a suitable frame to provide a shutter or jalousie through which air may pass freely, but through which light will not pass.

The slats, being formed of material of proper characteristics, such as synthetic resin material, are strong and resilient, substantially sun and weather proof, longitudinally stiff because of their corrugated formation, light in weight, corrosion resistant and noise suppressing.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claim rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

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What is claimed is:

A blind comprising a support and a plurality of slats mounted in said support in spaced apart and substantially parallel relationship to each other, each of said slats comprising a strip of light transmitting sheet material having a longitudinally extending corrugation disposed symmetrically of the midwidth location thereof and having marginal portions of less width than the width of said corrugation extending one along each side of the latter, said corrugation having a radius of curvature transversely of said slat at least as great as one-fourth of the width of the slat and said marginal portions each having a radius of curvature transversely of said slat substantially equal to the radius of curvature of said corrugation and having their convex side at the same side of said slat as the concave side of said corrugation, said slats having their corrugations disposed at the upper sides thereof and being spaced apart a distance such that a plane touching the convex surfaces of both marginal portions of one slat is substantially in contact with the convex surface of the corrugation of the adjacent lower slat.

THOMAS MIAO.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,093,415	Himes	Apr. 14, 1914
2,118,134	Allison	May 24, 1938
2,209,355	Schmitz	July 30, 1940
2,300,545	Gouch	Nov. 3, 1942