Feb. 19, 1946. E. T. BROWN 2,395,096

BLINDS

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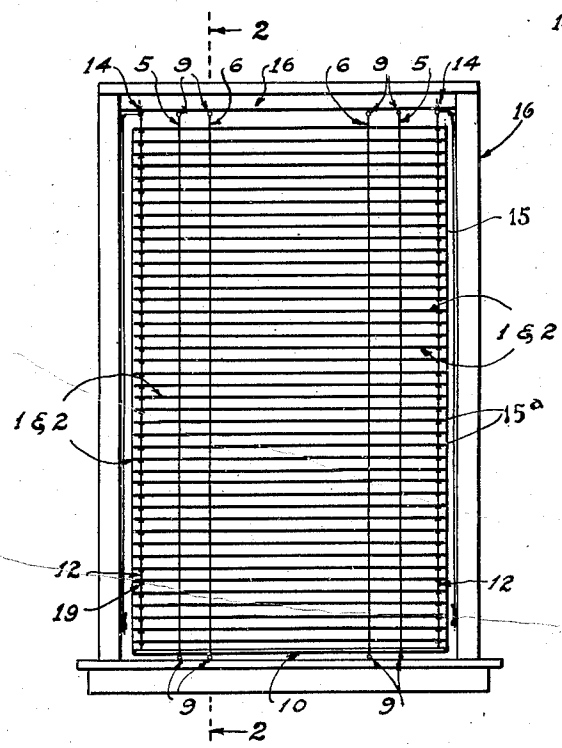


FIG. 1

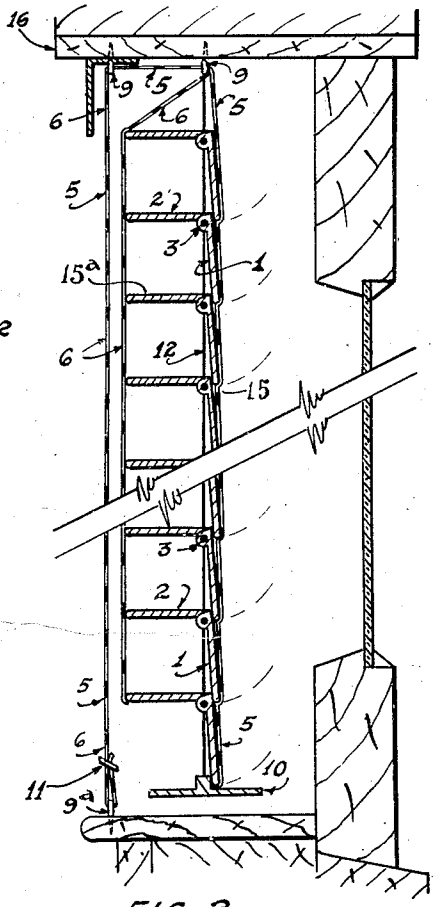


FIG. 2

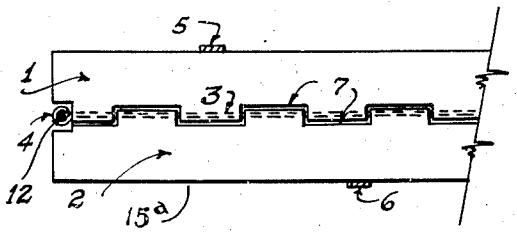


FIG. 3

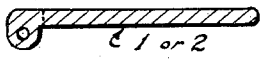


FIG. 4

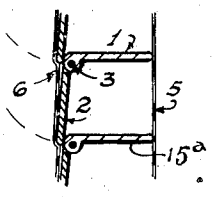


FIG. 5

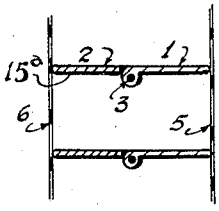


FIG. 6

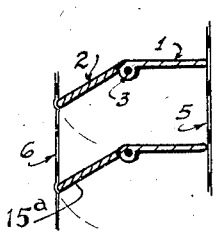


FIG. 7

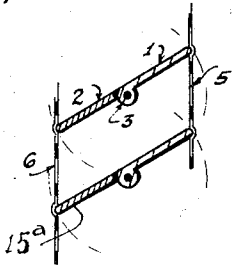


FIG. 8

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BLIND

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4 Claims. (Cl. 160—113)

This invention relates to blinds for windows or the like and in particular to those of the type known as Venetian blinds.

An object of this invention is to provide a blind having slats so designed that the amount of light, as well as the color or quality of the light may be controlled, either simultaneously or independently of each other.

Another object of the invention is to provide a blind which is adjustable to control the amount of light to or from a room with a minimum of interference with the flow of air through the blind.

Another object of the invention is to provide a blind having slats so shaped that vision through the opening may be stopped while light is permitted to show through, and between, the slats.

Another object of the invention is to provide a blind of the character described which is simple and economical to manufacture, the same being readily adaptable to the use of continuous extruded materials, such as plastics.

These and other objects of the invention will be manifest from the accompanying drawing and the following brief description thereof.

Of the accompanying drawing:

Fig. 1 is an elevational view of a Venetian blind embodying the features of the invention in a window opening.

Fig. 2 is a vertical cross-section, partly broken away, taken on the line 2—2 Fig. 1 and illustrating pairs of mating elements adjusted to one closed position.

Fig. 3 is a fragmentary plan view of one of the pairs of slats of the blind.

Fig. 4 is a cross-section of a typical slat element showing one type of hinge construction.

Fig. 5 is a fragmentary vertical cross-section showing the mating slat elements adjusted to another closed position of the blind oppositely of the closed position shown in Fig. 2.

Fig. 6 is a similar fragmentary, vertical cross-section showing the mating slat elements adjusted to a fully open position of the blind.

Fig. 7 is a similar fragmentary cross-section showing one of the slat elements in a horizontal, or fully open, position, while the other slat element is in a partly closed position.

Fig. 8 is a similar vertical cross-section showing mating slat elements adjusted to be in the same plane, angularly of the horizontal.

Referring particularly to Figures 1 and 2 of the drawing, the numeral 16 designates a window frame in which is mounted a blind 15 of the type embodying the invention. The blind 15 comprises a plurality of vertically spaced slat units 15*a*, 15*a* extending transversely of the window, and vertically shiftable relatively of each other, by means to be described, to raise and lower the blind in the usual manner of Venetian blinds.

Each slat unit 15*a* may comprise a pair of flat strips 1 and 2, hingedly connected by means of a pin 3 extending longitudinally through mating tongue and slot portions 7, 7 in the strips (see Figures 3 and 4), in the manner of piano hinges. The slat units may be supported in spaced relation, in the lowered position of the blind, by means of cords 12, 12, suspended from eyelets 14 at the top of frame 16 and loosely extending through eyelets 4, 4 at the ends of hinge pins 3, the upper end of the cords extending to conventional guide and fastening means, and the normal spaced relation of the slats being maintained by the eyelets 4 engaging on top of members 19, 19 secured in spaced relation on the cords 12. The cords 12 may have the lower ends thereof secured to an anchoring or base slat 10 of suitable weight to hold the cords in taut condition. Thus the cords 12 provide means for raising and lowering the blinds.

In accordance with the present invention, the pairs of slat elements 1 and 2 are angularly adjustable relatively of each other. For this purpose, there may be provided flexible elements 5, 5, of fabric tape, cord, or plastic strips, which are adhered to the edges of the slat elements 1 so as to maintain the same in parallelism, as shown in Figures 2, 5, 6, 7, and 8, the upper ends of flexible elements 5 being extended, through guides 9, 9 in frame 16, downwardly to eyelets 9*a*, 9*a* in the bottom of the frame. The flexible elements 5 are adjustably anchored to eyelets 9*a*, as by means of friction clamps 11, whereby the elements 5 are operable to adjust slat elements 1 to various positions in parallelism. Flexible elements 6, 6 of the same material as elements 5 are similarly adhered to the edges of the slat elements 2 and arranged to adjust the same in parallelism, which adjustment may be independently of adjustment of slat elements 1. The slat units 15*a* may, if desired, be made of plastic materials, and the mating slat elements 1 and 2 of each unit may be of different kinds or types of material. For example, the slat elements 1 and 2 may be of transparent, and translucent material respectively, whereby both the kind or quality of light and the amount of light may be regulated according to individual requirements.

In the use or operation of the blind described above, the slat elements 1 and 2 may be separately

adjusted, by means of the flexible elements 5 and 6, so that all light entering the window will pass through fully closed transparent slat elements 1, as shown in Figure 2, or adjusted so that little or no light will enter, by closing the translucent slat elements 2, as shown in Figure 5. Thus translucent or opaque slat elements would make possible the use of the blind as a blackout curtain. Various kinds of light, varying between these two extremes, are obtainable in the manner previously described.

It will be readily seen that the slat elements 1 and 2 may be of different transparent colors to obtain different combinations of pleasing effects. Also, the blind is adapted for use as a heat insulating device for windows, as, by closing one set of transparent slat elements, the latter, if desired, being colorless so as to permit full passage of light and maximum vision.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. A Venetian or like blind comprising a plurality of spaced slat units, means for supporting said slat units in vertically spaced relation and operable to adjust the units from and toward each other to raise and lower the blind, said slat units each comprising a pair of mating strips hinged together to swing relatively of each other about an axis longitudinally of the unit, and flexible adjusting elements connected to said slat elements and operable for swinging the same about said axis in two series in parallelism, said adjusting elements of each series being separately operable to adjust the series of slat elements in various combinations of angles of the mating slat elements about the axes of the slat units.

2. A Venetian or like blind comprising a plurality of spaced slat units, means for supporting said slat units in vertically spaced relation, said slat units each comprising a pair of mating strips hinged together to swing relatively of each other about an axis longitudinally of the unit, and flexible adjusting elements connected to said slat elements and operable for moving the same in two series in parallelism, said adjusting elements of each series being separately operable to adjust the series of slat elements in various combinations of angles of the mating slat elements about the axes of the slat units, said slat elements of one series having different light-transmitting characteristics than the slat elements of the other series, whereby said slat elements are operable in various combinations to vary light passing through the slat elements as well as between the same.

3. In a Venetian or like blind, a plurality of slat units each comprising a plurality of relatively movable slat elements, and means connecting the slat elements of said units in separate series and operable at will for moving the slat elements of one series relatively of the slat elements of another series, the material of said slat elements of one series having different light transmitting characteristics than the material of the other series.

4. A Venetian or like blind comprising a plurality of spaced slat units, means for supporting said units in spaced relation and operable to adjust the units from and toward each other to raise and lower the blind, said slat units comprising mating strips hinged together to swing relatively of each other about an axis longitudinally of the unit, and means for relatively adjusting said slat elements about said axis in separate series, said slat elements of one series having different light-transmitting characteristics than the slats of the other series, whereby said slat elements are operable in various combinations to vary light passage through the slat elements as well as between the same.

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