Jan. 29, 1946. D. L. J. SMITH ET AL 2,393,819

VENETIAN BLIND

Filed April 19, 1944 2 Sheets-Sheet 1

FIG. 1

FIG. 2

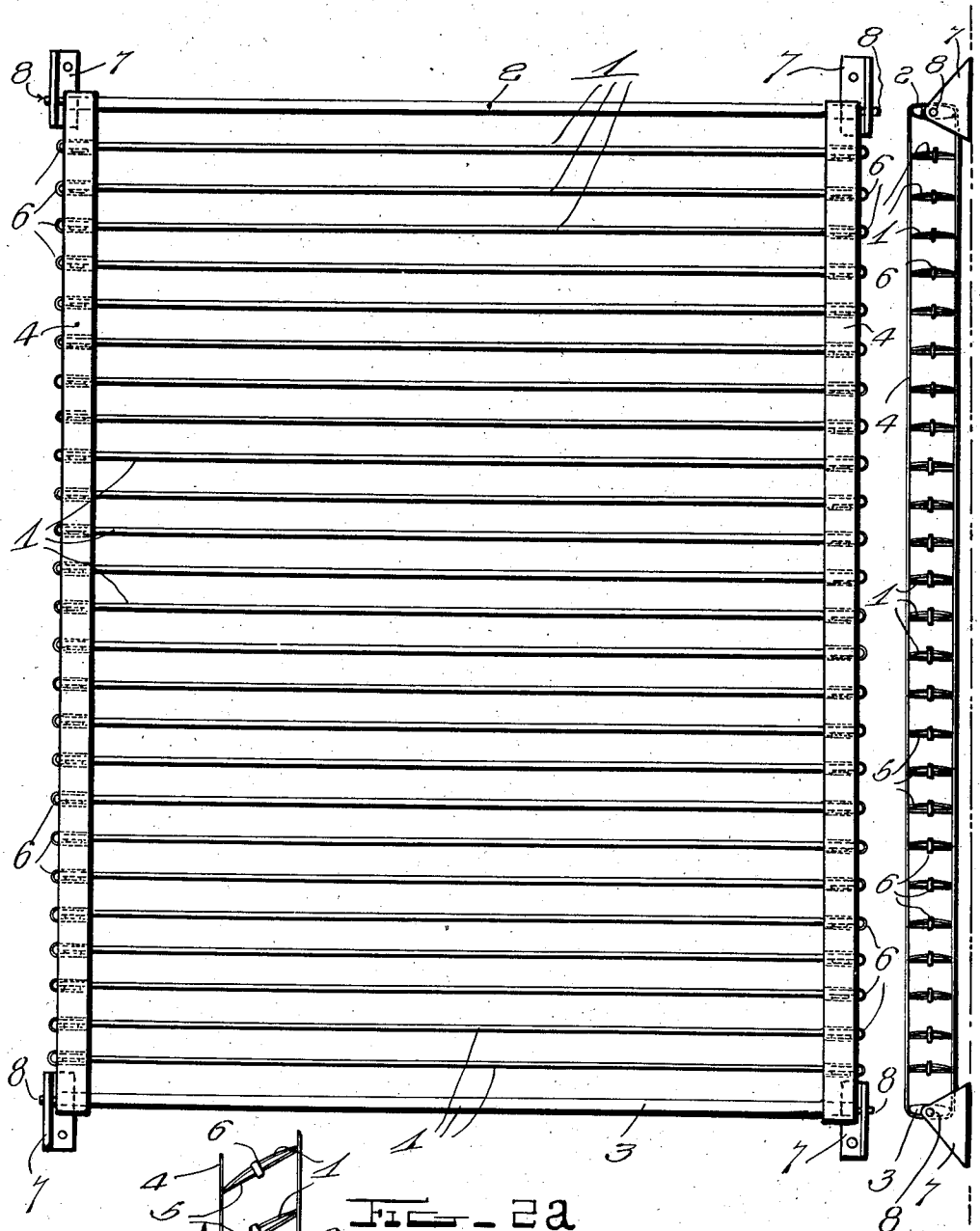
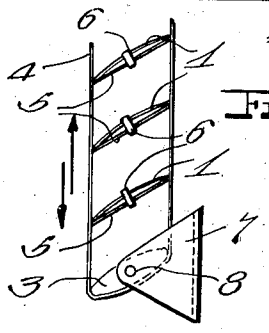


FIG. 2a

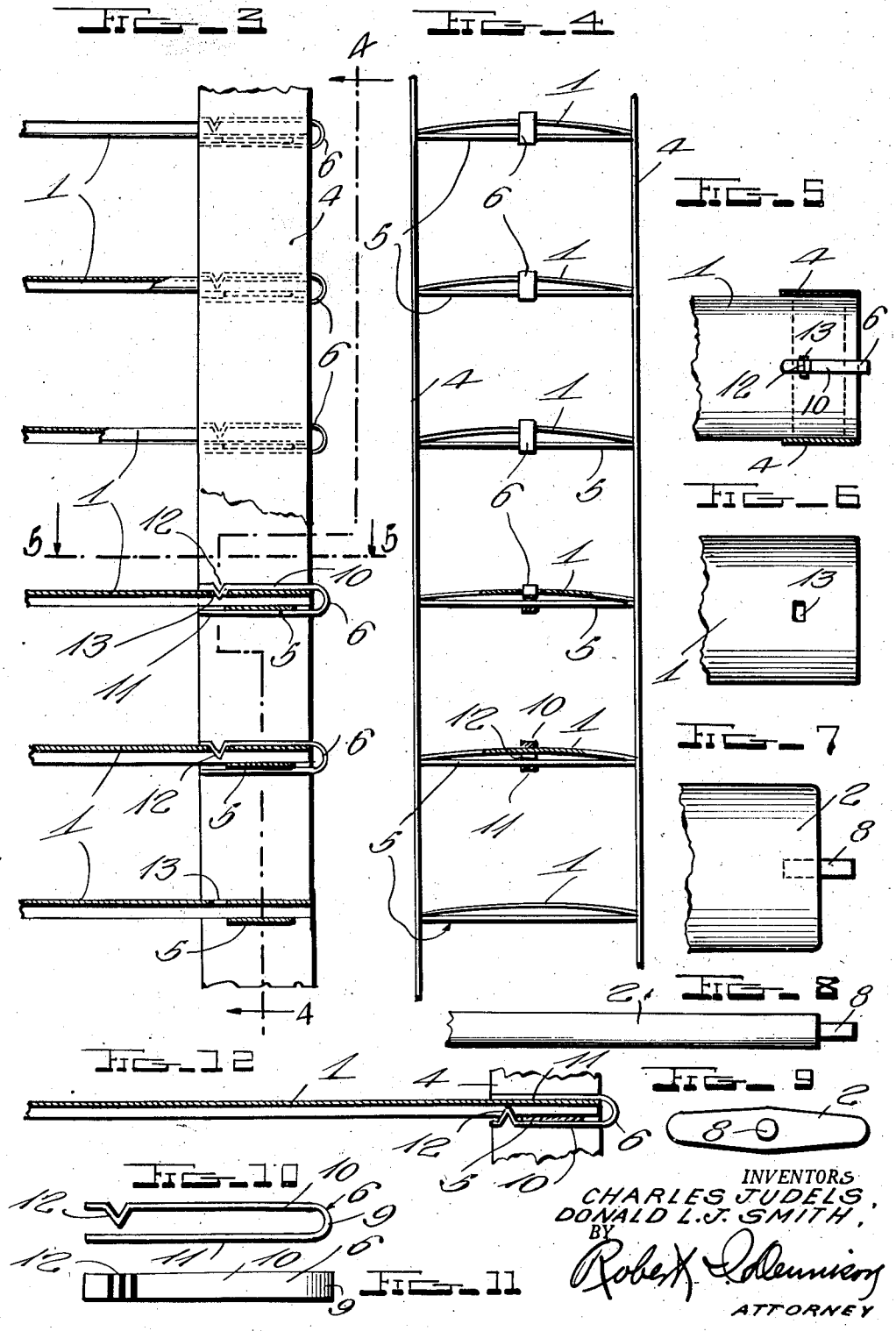


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2,393,819

VENETIAN BLIND

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5 Claims. (Cl. 160—178)

This invention relates to Venetian blinds and it is one object of the invention to provide blinds of this type which are so constructed that two or more may be used at a window, one above another and independently adjusted. It will thus be seen that by installing upper and lower blinds, one above another, passage of light through an upper sash or a lower sash may be regulated independent of each other and glare eliminated without unduly darkening a room.

Another object of the invention is to provide the Venetian blinds with slats carried by supporting strips located at ends of the slats instead of in spaced relation to their ends. Therefore, the vertically extending strips or tapes carrying the slats will be disposed adjacent opposite side portions of a window frame instead of in front of the sashes and will not interfere with a clear and unobstructed view through a window. When drapes are in use they will cover the supporting tapes and conceal them from view.

Another object of the invention is to so mount the slats that they are fastened to cross tapes carried by the supporting tapes, the supporting tapes being secured to tilting slats at upper and lower ends of the blinds and causing all of the slats to be tilted together when the supporting tapes are shifted upwardly or downwardly.

Another object of the invention is to provide slats which are firmly but detachably held to the cross tapes by resilient clips, thus permitting the slats to be removed for cleaning or repairs and then easily replaced and secured.

Another object of the invention is to provide Venetian blinds which are simple in construction, cheap to manufacture, and capable of being readily and easily installed.

The invention is illustrated in the accompanying drawings wherein—

Figure 1 is a front view of the improved Venetian blinds;

Figure 2 is a side view thereof;

Figure 2ª is a fragmentary side view showing the slats tilted to an inclined position;

Figure 3 is a fragmentary view showing some of the slats and one of the supporting strips or tapes partially in front elevation and partially in section;

Figure 4 is a side view showing a portion of the Venetian blinds upon an enlarged scale, the view being taken along the line 4—4 of Figure 3;

Figure 5 is a fragmentary sectional view taken along the line 5—5 of Figure 3;

Figure 6 is a top plan view of one end portion of a slat in which a clip-receiving opening is provided;

Figure 7 is a top plan view of one of the tilting slats;

Figure 8 is an edge view of an end portion of a tilting slat;

Figure 9 is an end view of a tilting slat;

Figure 10 is a side view of one of the slat-securing clips;

Figure 11 is a top plan view of the clip; and

Figure 12 is a view showing the slat in longitudinal section and the clip applied thereto.

This improved Venetian blind consists briefly of a multiplicity of slats 1, upper and lower tilting slats 2 and 3 which may be termed head slats, supporting strips or bands 4 carrying cross strips 5 to which the slats 1 are secured by resilient clips 6, and brackets 7 by means of which the head slats are tiltably mounted across a window.

The head slats or tilting slats 2 and 3 are of appreciably greater thickness than the slats 1 and may be formed of wood, plastic, metal, or other suitable material while the slats 1 are formed of sheet material which may be sheet metal, wood, plastic or the like and are of concavo-convexed formation in cross section, as shown in Figure 4, with their concaved surfaces presented downwardly.

The head slats have pintles 8 projecting from their ends which engage through openings formed in the brackets 7 to tiltably mount the head slats, and side edge faces of these head slats are rounded, as shown in Figure 9, so that wear upon the bands or strips 4 will be reduced to a minimum.

The bands or strips 4 are formed of fabric and are endless, as shown in Figure 2, and referring to this figure, it will be seen that the bands are trained about the slats 1 and the head slats 2 and 3 in close contacting engagement with the head slats. Therefore, when one of the bands is grasped and vertical shifting movement imparted to it, the cross slats will be simultaneously turned axially of their pintles. The cross strips 5 extend between front and rear flights of the bands 4 where they are secured in any desired manner, and the slats 1 are of such width that when they are set in place their side edges will make contact with inner surfaces of the front and rear flights of the bands. The clips 6 are then applied and since the clips are resilient they exert pressure upon the slats and the cross strips and impart a stretching action to the cross

strips and cause the slats 1 to be so mounted that they tilt with the head slats.

The clips are of duplicate construction and each is formed from a strip or strand of resilient metal which is bent substantially midway its length to provide an arcuate bridge portion 9 and arms 10 and 11 spaced from each other as shown in Figure 10. The arm 10 is bent in spaced relation to its free end to form an inwardly extending V-shaped spur or teeth 12, and the slats 1 are formed near their ends with openings or perforations 13 in which the spurs or teeth 12 engage to hold the clips in place and prevent the slats 1 from shifting longitudinally out of engagement with the cross strips 5.

If the slats 1 are not formed with openings 13 the clips may be turned to dispose their arms 10 lowermost, as shown in Figure 12, and the teeth 12 will then engage against inner side edges of the supporting strips 5 and prevent the clips from slipping out of engagement with the slats and the cross strips upon which the slats rest. Frictional grip of the teeth and the arms 11 against upper and lower surfaces of the slats 1 will cause the slats to be firmly held against longitudinal shifting.

When the improved Venetian blinds are in use they are mounted as shown in Figures 1 and 2 with their slats extending transversely across a window and the brackets 7 mounted at upper and lower corners of the window frame. Since the bands or strips 4 are located at ends of the slats they will be disposed adjacent opposite side portions of the window frame instead of opposite portions of the sashes and they will not interfere with clear view through the window. The fact that the bands are opposite side portions of the window frame also permits them to be covered and concealed by draperies hung along the side portions of a window. When the slats 1 are in a horizontal position a person may see clearly through the window and light also enters a room.

By grasping the front flights of the bands 4 and shifting the same upwardly or downwardly the cross strips 5 carried by bands 4 will be tilted and the slats 1 tilted with them to an inclined position which will prevent glare. By turning the slats to a substantially vertical position in which edge portions of the slats overlap all glare will be eliminated and persons outside a room prevented from seeing through the window. When it is necessary to clean a Venetian blind, the clips may be easily removed, the slats thoroughly cleaned, and then replaced and secured by the clips.

While we have shown the preferred embodiment of our invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what is claimed is:

1. In a Venetian blind comprising a multiplicity of slats, upper and lower head members pivotally mounted for vertical tilting movement, supporting bands severally trained about the ends of the head members and having front and rear flights extending vertically along the ends of side edges of said slats, and cross bands mounted between the flights of said supporting bands with the end portions of the slats resting upon the respective cross bands; means detachably securing the end of one of the slats to the associated cross band at the transverse center of the slat.

2. In a Venetian blind comprising a multiplicity of slats, upper and lower head bars pivotally mounted for vertical tilting movement, endless supporting bands disposed vertically and severally trained about the ends of said head bars, and cross bands mounted between flights of said supporting bands, said slats being arcuate transversely and having their end portions resting upon the cross bands; resilient clips respectively straddling said bands and the ends of the associated slats and applying pressure to hold the slats in place upon the respective cross bands, the side edges of the slats being in engagement with the inner surfaces of the flights of the supporting bands.

3. In a Venetian blind comprising a multiplicity of slats, upper and lower bars pivotally mounted for tilting movement, endless supporting bands disposed vertically and severally trained about the end portions of said head bars with front and rear flights between which the end portions of the slats extend, and cross bands mounted between the flights of said supporting bands and engaging under the end portions of said slats; U-shaped resilient clips respectively straddling the cross bands and the ends of the associated slat and applying pressure to hold the slats to the associated cross bands.

4. In a Venetian blind comprising upper and lower bars pivotally mounted for tilting movement, supporting bands extending vertically and severally trained about the ends of cross bars, cross bands carried by said supporting bands, and a multiplicity of slats having end portions resting upon said cross bands, said slats being of concavo-convex formation in cross section with their concaved faces presented downwardly and their side edges contacting the cross bands; resilient clips respectively straddling said cross bands and the end portions of the associated slats longitudinally thereof and firmly gripping the cross bands and associated slats.

5. In a Venetian blind comprising upper and lower cross bars pivotally mounted for tilting movement, supporting bands extending vertically and severally trained about the ends of said cross bars, cross bands carried by said supporting bands, and a multiplicity of slats having end portions respectively resting upon said cross bands, said slats being of concavo-convex formation in cross section with their concaved faces presented downwardly and their side edges contacting the cross bands, each slat having openings formed in spaced relation to its ends; resilient clips respectively straddling the cross bands and the end portions of the slats, each clip having a tooth engaged in the associated opening in its slat.

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