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ADJUSTABLE LOUVER FOR VENETIAN BLINDS

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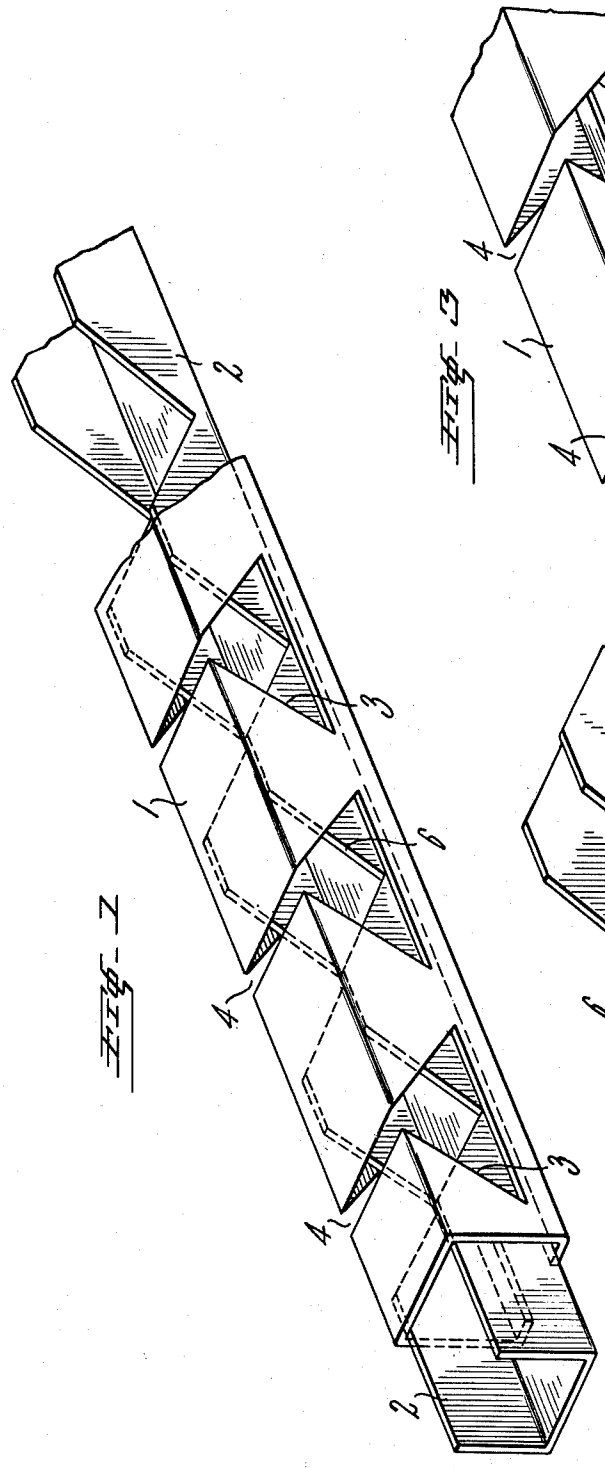


FIG. 1

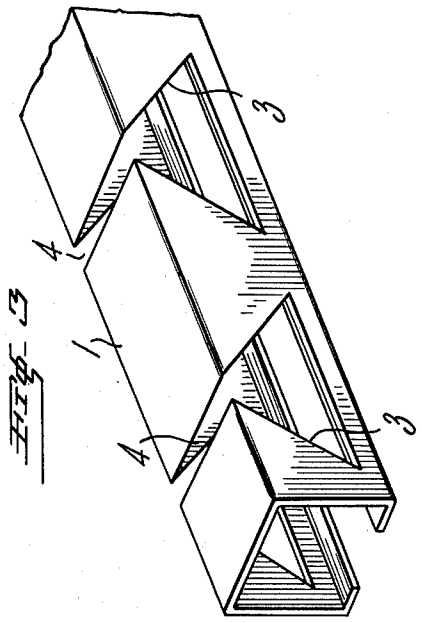


FIG. 3

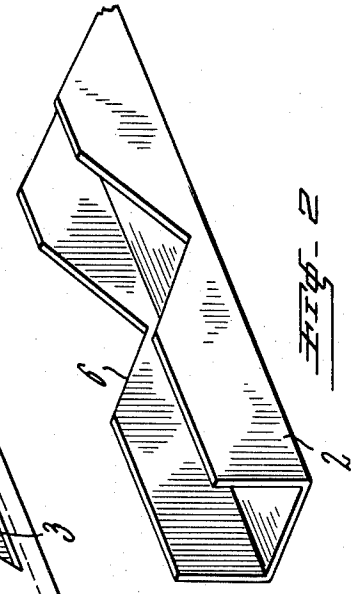


FIG. 2

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Fig. 4

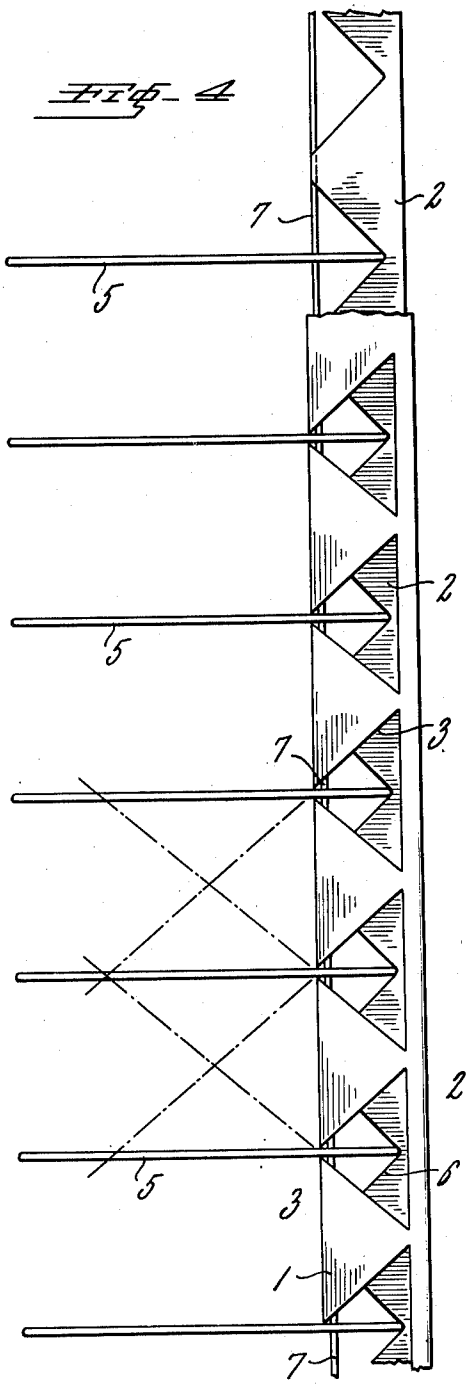


Fig. 7

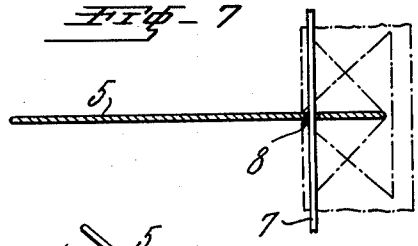


Fig. 6a

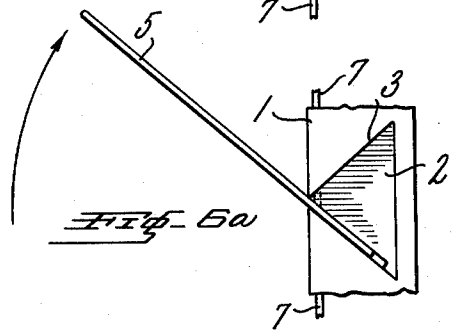


Fig. 6

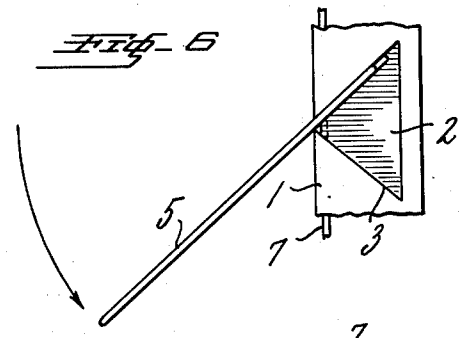
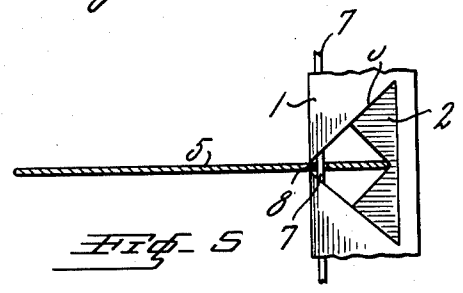


Fig. 5



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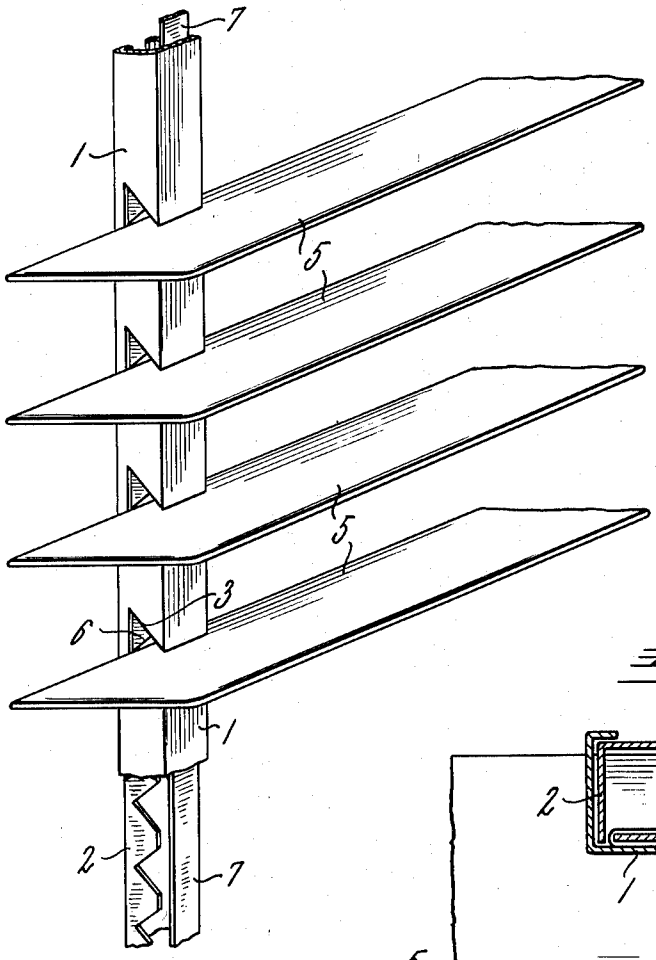


Fig. 8

Fig. 9

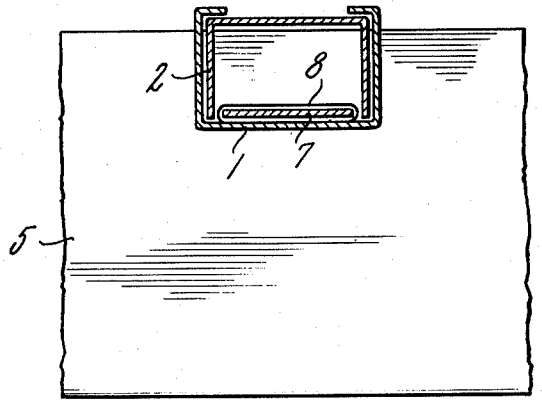
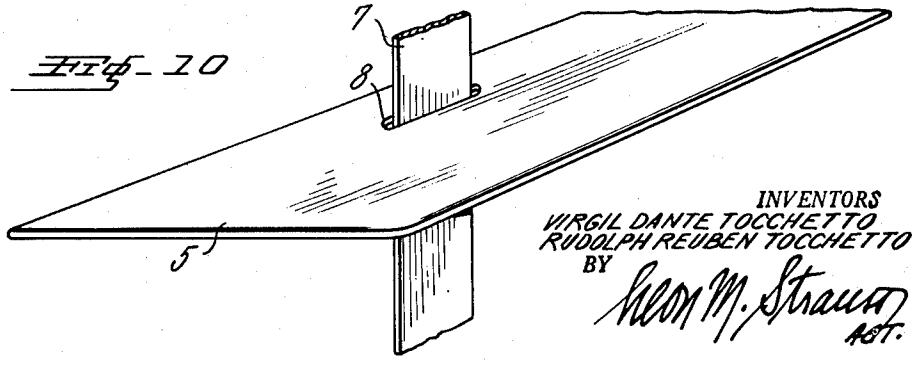


Fig. 10



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2,623,251

ADJUSTABLE LOUVER FOR VENETIAN BLINDS

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Montevideo, Uruguay

Application January 21, 1950, Serial No. 139,872
In Uruguay November 28, 1949

2 Claims. (Cl. 20—62)

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This invention relates to adjustable vanes or louvers for Venetian blinds, grilles and similar devices, whereby the louvers may easily be operated for completely closing said blinds or for guiding said louvers into inclined positions.

It is one of the objects of the present invention to provide means facilitating improved positive transmission of movement to and guidance of the louvers to the aforesaid predetermined positions.

It is another object of the present invention to provide means affording the application of the louvers to various structures, such as grilles, ventilators, Venetian blinds and similar structures, and allowing, besides decorative effects, for varying incidence of light into a room as well as admission of air to the latter.

It is a further object of the present invention to provide means contributing to a simplification of the structure as well as the function of the louvers used in grilles, Venetian blinds, etc.

Still a further object of the present invention is to provide means permitting positive guidance and movement of the louvers to extreme positions and from one single operating point only for all of the louvers.

Other objects and advantages of the invention reside in the provision of means conducive to relatively inexpensive manufacture of the louvers or grilles, Venetian blinds, etc. and to easy assembly, convenient operation and sturdy construction thereof.

The above and other objects and features will become apparent from the following detailed description, reference being made to the accompanying drawings, in which:

Fig. 1 shows, in perspective, a longitudinal, U-shaped frame engaged by a further U-shaped, complementary guide frame (the latter being shown in dotted lines);

Figs. 2 and 3 show, respectively, in perspective, elongated U-shaped guide frame and elongated U-shaped main frame of Fig. 1;

Fig. 4 shows in section a plurality of louvers inserted in the U-shaped main frame and in contact with the guide frame;

Figs. 5, 6, 6*a* and 7 illustrate various positions of the louvers relative to the guide frame;

Fig. 8 shows, in perspective, the louvers in position relative to the U-shaped main frame, the lower part thereof being broken off to show the interior thereof with the guide frame and guide strip for the louvers;

Fig. 9 is a top sectional view (taken above a louver) through the assembled frames;

Fig. 10 shows the guide strip passing through a slot of a louver.

Referring now more particularly to the attached drawings, there is shown an elongated hollow main frame 1 U-shaped in cross-section and adapted to receive therein for reciprocal

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movement a U-shaped guide frame 2. Figs. 1 and 3 disclose that the main frame 1 is provided with a plurality of triangularly shaped cut-outs 3 terminating in open top slots 4 shaped for the passage of louvers or slats 5 therethrough. Guide frame 2 has V-shaped cut-outs 6 in its parallel upright walls, which cut-outs terminate in lowermost ends at the base of said frame and are adapted to register with the top slots 4.

The V-shaped cut-outs 6 are defined by edges forming a substantially right angle with respect to each other. Each vane or louver 5 is further provided with a passageway or slot 8 through which extends a suitable tape 7 on which the vane 5 is threaded, as can be more clearly seen from Figs. 8 and 9.

The operation of the device will become more apparent from Figs. 4 to 7, inclusive. The vanes 5 extend through the top slots 4 for engagement with the V-shaped cut-outs 6 of the guide member 2, the latter being inserted within the U-shaped main frame 1. The vanes are retained within the fixed frame member by means of the tape 7. It will now be realized that by movement of U-shaped guide frame 2 (Fig. 4) the vanes or louvers 5 may be moved from a fully open position (Figs. 4, 5 and 7) to extreme positions as indicated in Figs. 6, 6*a* whereby the louvers 5 partly overlap each other in spaced apart relation, as indicated in dotted lines in Fig. 4.

It is well understood that by moving guide frame 2 relative to the main frame 1 by any suitable means, such as screw bolt-nut connection (not shown), all the louvers may be simultaneously moved while being retained within the frame by means of the tape or strip 7.

It can thus be seen that there has been provided in accordance with the present application a Venetian blind and like ventilating structure; a series of substantially flat louvers each provided with a slot, a hollow U-shaped main frame provided with a plurality of spaced apart, triangular cut-outs each terminating in an open top slot at the apex of each triangular cut-out, a U-shaped guide frame reciprocably movable in said hollow main frame and supported by the latter, said guide frame being provided with a plurality of spaced apart V-shaped cut-outs, each V-shaped cut-out being defined by opposite edges forming a right angle to each other and terminating in a lowermost and arranged for registry with the corresponding top slot of a respective triangular cut-out of said main frame, said louvers being disposed to extend into said top slots for contact with said lowermost ends of said V-shaped cut-outs, respectively, and means passing through and along said hollow main frame and threaded through said slots of said louvers for retaining the latter within said hol-

low main frame and below said top slots thereof, whereby upon relative movement of said guide frame to said main frame said louvers may be moved and guided within said open top slots for engagement with one or the other of said inclined edges defining said V-shaped cut-outs.

While there has been shown and described a preferred embodiment of the invention, it is obvious that various changes may be made in the same without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent, is:

1. In a Venetian blind and like ventilating structure; a series of substantially flat louvers each provided with a slot, a hollow U-shaped main frame provided with a plurality of spaced apart, triangular cut-outs each terminating in an open top slot at the apex of each triangular cut-out, a U-shaped guide frame reciprocably movable in said hollow main frame and supported by the latter, said guide frame being provided with a plurality of spaced apart V-shaped cut-outs, each V-shaped cut-out being defined by opposite inclined edges terminating in a lowermost end arranged for registry with the corresponding top slot of a respective triangular cut-out of said main frame, said louvers being disposed to extend into said top slots for contact with said lowermost ends of said V-shaped cut-outs, respectively, and means passing through and along said hollow main frame and threaded through said slots of said louvers for retaining the latter within said hollow main frame, whereby upon relative movement of said guide frame to said main frame, said louvers may be moved and guided within said open top slots for engagement with one or the other of said inclined edges defining said V-shaped cut-outs.

2. In a Venetian blind and like ventilating structure; a series of substantially flat louvers each provided with a slot, a hollow U-shaped main frame provided with a plurality of spaced apart, triangular cut-outs each terminating in an open top slot at the apex of each trianguar cut-out, a U-shaped guide frame reciprocably movable in said hollow main frame and supported by the latter, said guide frame being provided with a plurality of spaced apart V-shaped cut-outs, each V-shaped cut-out being defined by opposite edges forming a right angle to each other and terminating in a lowermost end arranged for registry with the corresponding top slot of a respective triangular cut-out of said main frame, said louvers being disposed to extend into said top slots for contact with said lowermost ends of said V-shaped cut-outs, respectively, and means passing through and along said hollow main frame and threaded through said slots of said louvers for retaining the latter within said hollow main frame and below said top slots thereof, whereby upon relative movement of said guide frame to said main frame said louvers may be moved and guided within said open top slots for engagement with one or the other of said inclined edges defining said V-shaped cut-outs.

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RUDOLPH R. TOCCHETTO.

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