Aug. 21, 1956 W. H. SCHWAB 2,759,573

JALOUSIES OR THE LIKE

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FIG. 1

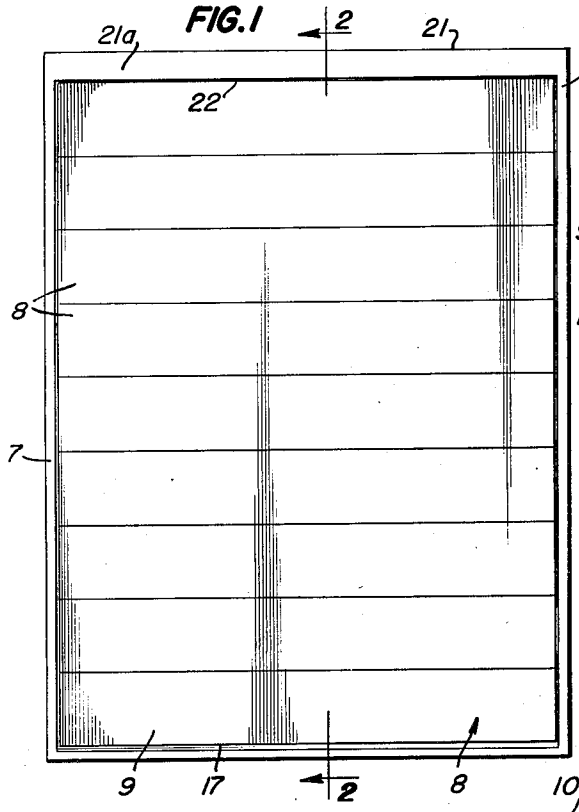


FIG. 2

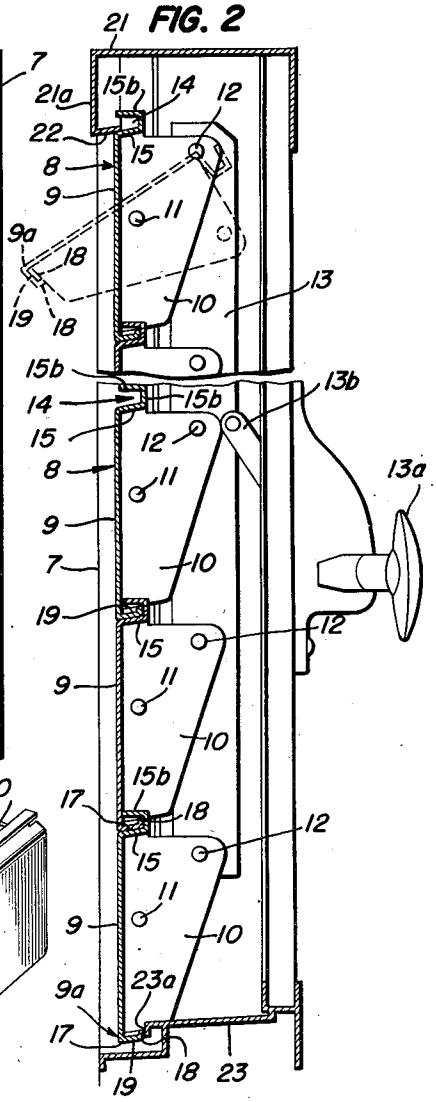


FIG. 3

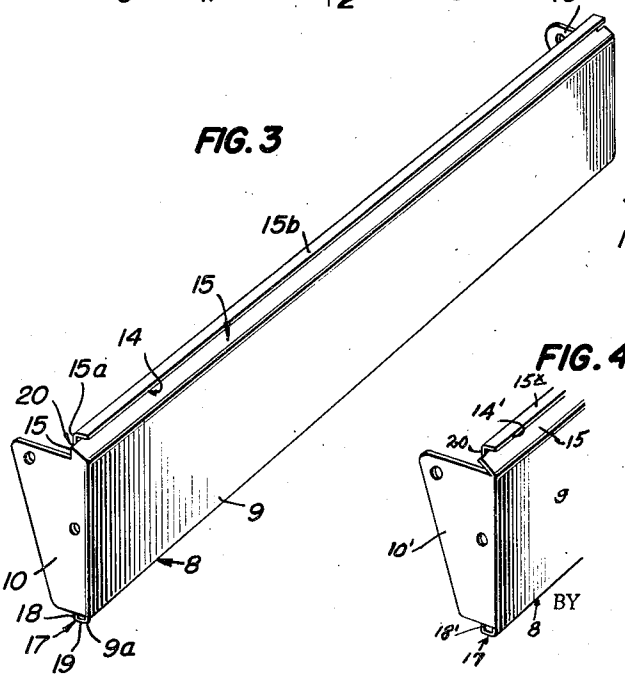


FIG. 4

INVENTOR

Walter H. Schwab

BY Eugene E. Stevens

His ATTORNEY

United States Patent Office

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JALOUSIES OR THE LIKE

Walter H. Schwab, Miami, Fla.

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5 Claims. (Cl. 189—62)

My invention relates to improvements in jalousies which comprise a plurality of pivoted louvers, arranged for simultaneous adjustment for ventilation and light control purposes, and which are adapted to be closed against one another to exclude, so far as possible, the elements such as wind, rain, snow, etc.

As heretofore designed, jalousie louvers have not made a good seal when closed as "closing" has amounted to little more than overlapping of adjacent louvers. This means that driving rain will tend to beat up under overlapping louver edges and of course, since precision engagement throughout the lengths of overlapping louvers is impractical, an absolutely draft tight seal will not be obtained either.

It is therefore the primary object of my invention to provide a tight interfitting joint between adjacent louvers when the same are closed, the nature of my construction being such that when the jalousies are shut or closed against one another they will present a substantially plane weathertight exterior surface.

More specifically stated, it is an object of the invention to provide adjacent louvers with integral longitudinally coextensive contiguously engaging and preferably upwardly inclined weather sealing surfaces, which terminate in substantially vertical secondary sealing surfaces, which latter function as stops to maintain the exterior surface of the louver assembly substantially plane when the louvers are closed.

Additionally, the invention contemplates a weathertight louver construction for jalousies which will be comparatively inexpensive to manufacture, the nature of the construction being such that it can be produced largely by simple stamping operations, and wherein when light guage stock is used there will be a desirable yield when louver surfaces engage so as to further effect joint sealing.

Various other objects and advantages of the invention will be understood and appreciated by those versed in the art as the description proceeds, it being emphasized that the invention also resides in certain novel features of construction, combination and arrangement of the various parts, and in modes of operation.

In the drawings, wherein the same reference characters have been used to designate the same parts throughout the several views—

Fig. 1 is a fragmentary front elevational view of a jalousie embodying louvers formed in accordance with my invention, the louvers being shown in closed position;

Fig. 2 is a cross-sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a perspective view of one of the louvers; and

Fig. 4 is a fragmentary perspective view of a slightly modified louver showing a yielding channel-provided sealing surface which may be employed to advantage when light guage stock is used.

Referring to the drawings by reference characters, Fig. 1 discloses a jalousie comprising a plurality of horizontally pivoted louvers 8, which are supported by the side

members 7 of the carrying frame which is conventionally employed; and as shown in closed position the front walls 9 of the louvers 8 cooperate to provide a substantially plane surface which is broken only by the sealed joints between adjacent louvers.

The louvers 8 provide the end walls 10 and the latter taper to increased width in the direction of the upper ends thereof, as illustrated in Figs. 2 and 3.

Fig. 2 illustrates the individual louvers 8 as having their side walls 10 pivoted as at 11 to the side members 7 of the carrying frame, and movement of the individual louvers in unison is effected in the usual fashion by the vertically movable bar 13 to which the louver end walls 10 at at least one end are pivoted as indicated at 12. Thus, upon downward movement of the bar 13 as viewed in Fig. 2, the louvers 8 will be rocked in a clockwise direction to the dotted line position of same as indicated in Fig. 2.

So much of the structure as has been referred to is old in the art, except, however, that the weathertight joints between adjacent louvers indicated in Figs. 1 and 2 is novel with my invention.

Coming now to the invention to be dealt with, it is noted that the top edge of the front wall 9 of each louver 8 provides the longitudinally coextensive forwardly opening channel 14 which has the free top wall 15*b*, bight wall 15*a* and bottom wall 15 which latter is integral with the louver front wall 9. The bottom wall 15 of each channel 14 overlies the subjacent portions of the top edges of the end walls 10 but is inclined upwardly from the top edges of said end walls as indicated in Fig. 2. It will be understood that the louvers 8 may be of considerable length and that channels 14 (and the shortly to be mentioned channels 17) serve as stiffening means. Thus channels 14, 17 serve to so stiffen the louvers as to prevent such deformation thereof which might admit at the channel-provided joints. This stiffening action of channels 14 is improved by swaging the channel walls to end walls 10 as indicated at 14*x* in Fig. 3; and also a slightly better seal is effected at the ends of adjacent louvers. However, when light guage material is used it may be desirable to have the lower wall of channel free for downswing yield to effect a tighter joint.

In further carrying out the invention, the lower edge of each louver is formed with an integral rearwardly extending channel 17. One side wall 9*a* of channel 17 is integral with the front louver wall 9 while the edge of the other, or rear, side wall 18 thereof makes firm bearing engagement with the adjacent lower edge portions of the louver side walls 10. The second-mentioned channels 17, are, or may be, very shallow and open upwardly as shown in Fig. 2.

The channels 17 each provide a bight wall 19 which is inclined and lies in a plane substantially parallel to the surface of the bottom wall 15 of the forwardly opening top channel 14.

Thus, when the louvers 8 are swung to the closed position indicated in Figs. 1 and 2, the broad upwardly inclined bight walls 19 of the rigid bottom channels 17 make bearing engagement with the broad similarly inclined bottom walls 15 of subjacent top channels 14. Also, the rear side walls 18 of the bottom channels 17 further engage the bight walls 15*a* of the related top channels 14 not only to effect a further weather seal, but also to limit closing movement and maintain the outer surfaces of the front louver walls in the same plane.

It is important to note that any slight imperfection of fit of channel walls 19, 15 when the louvers are closed will not impair the joint seal in view of the contiguous secondary seal-providing channel wall surfaces 18, 15*a*; and also because the sealing surfaces 19, 15 and 18, 15*a*

are upwardly directed to prevent rain from beating in. Furthermore a third seal is effected by the engagement of the free edges of top channel walls 15*b* with the rear surfaces of superjacent louvers, as shown in Fig. 2.

Also in carrying out the invention, I notch or cut away as at 20 (see Fig. 3) end portions of the top walls 15*b* and adjacent bight walls 15*a* of channels 14 to provide seats for the end walls 10 of the channelled lower ends of superjacent louvers 8. Thus, the ends of 15*b*, 15*a* bear against the inner surfaces of the end walls 10 of subjacent louvers to make a seal.

The modified louver 8' of Fig. 4, the parts 9', 10', 14', 15', 15*x*, 17', 18' and 20' correspond to parts 9, 10, 14, 15, 15*b*, 17, 18 and 20, respectively, of Figs. 2 and 3. The Fig. 4 louver 8' therefore differs from that of Fig. 3 only in that the bottom wall 15' is not swaged at its ends (see 14*x* of Fig. 3) to the subjacent side wall 10' and can thus yield downwardly slightly under wedging action from the bottom channel wall 18' of a superjacent louver 8' when the louvers of light gauge material are closed.

From the foregoing, it is believed that my improvements over the prior art will be fully appreciated, and as noted earlier herein, changes may be made in the structure as illustrated within the scope of what is claimed hereinafter.

Having thus described my invention, what I claim is:

1. In a jalousie comprising a plurality of horizontally pivoted frame-carried louvers movable to and from a closed inter-engaging position, each louver providing a front wall and rearwardly extending pivot-supported end walls, a first and a second louver-provided reinforcing channel substantially coextensive in length with and carried by opposite longitudinal edges of each louver, each first channel being rearwardly offset from the plane of the outer surface of the related louver and opening forwardly, each second channel being rearwardly turned and opening toward the related first channel rearwardly of the plane of the outer surface of its louver, the rear and bight walls of the second channel of each louver being received in the first channel of an adjacent louver and said channels providing angularly disposed contiguously engaging surfaces providing a double seal against the elements when the louvers are closed.

2. The combination set forth in claim 1 and a free side wall edge of each first channel engaging the rear surface of the front wall of an adjacent channel when the louvers

are closed whereby to provide a third sealing point between adjacent louvers.

3. The combination set forth in claim 1 and the second channel providing a free longitudinal wall having bearing engagement with the adjacent end wall edges whereby to be rigidly supported thereby.

4. The combination set forth in claim 1 and wherein the bight wall of the second channel and a side wall of the first channel are two of the contiguously engaging walls when the jalousies are closed, and wherein such walls are inclined away from the end edges of the side walls of the louvers.

5. In a jalousie a plurality of horizontally pivoted frame-carried louvers movable to and from a closed interengaging position, each louver providing a front wall and rearwardly extending pivot-supported end walls; and interfitting weather-tight sealing means between the longitudinal edges of adjacent louvers and comprising in combination a forwardly opening and rearwardly offset channel co-extensive in length with and having one side wall integral with the corresponding longitudinal edge of each louver front wall and having its other side wall free; each of said first mentioned channel side walls overlying and rearwardly inclined away from the end edges of the related louver end walls; a second rearwardly offset and longitudinally coextensive channel for each louver and having one side wall as an extension of the other longitudinal edge of the related front louver wall; each of said second channels having an inclined bight wall lying in a plane substantially parallel with the plane of the inclined side wall of said first-mentioned channel, the other side walls of said second channels engaging and sustained by the adjacent end wall edges; and the inclined and sustained bight walls of the second channels and the substantially similarly inclined front wall-carried side walls of the first channels of adjacent louvers wedgingly interengaging when said louvers are closed to form a primary weather-tight seal, and the second mentioned side walls of the second channels engaging at such time the bight wall of the adjacent louver first channel to effect a secondary seal.

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