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COMPOSITE LOUVER SLATS FOR JALOUSIE WINDOWS

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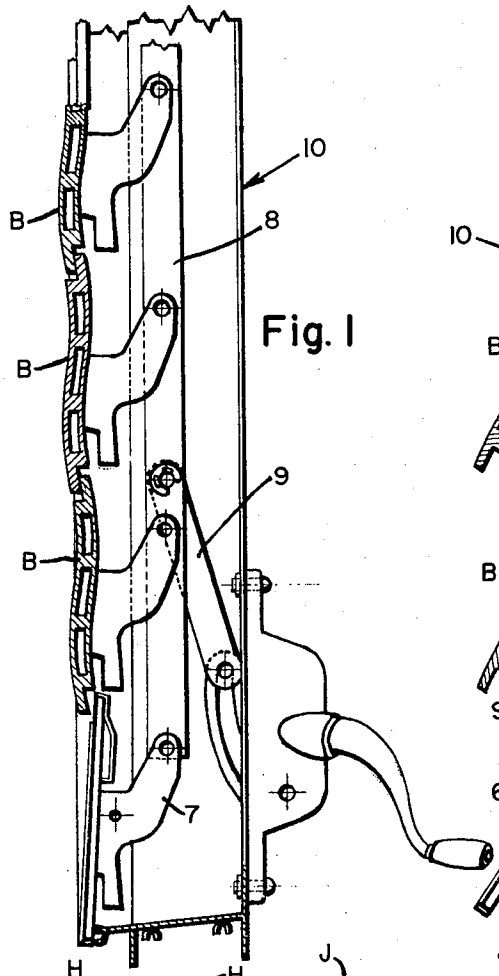
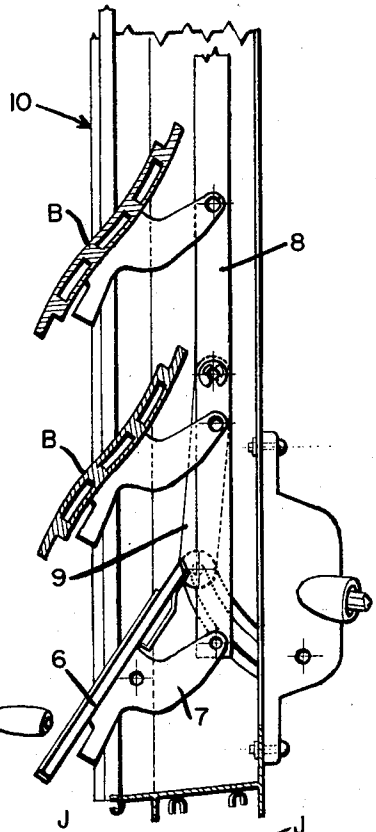


Fig. 1

Fig. 2



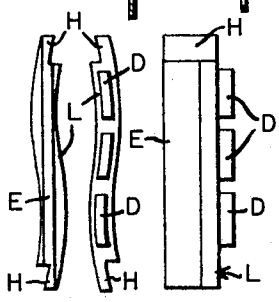


Fig. 4

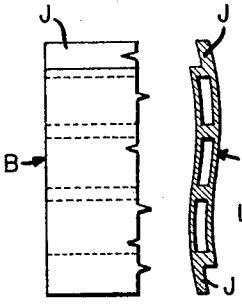


Fig. 3

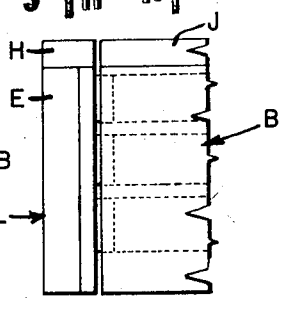


Fig. 5

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COMPOSITE LOUVER SLATS FOR JALOUSIE WINDOWS

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This invention relates to louver slats and particularly to composite hollow louver slats of plastic material particularly adapted for use in jalousie windows provided with means for angularly adjusting the louver slats, which may be rocked from a sloping position in which they admit air and light, while excluding sun and rain, to a substantially vertical position in which the adjoining louver boards contact with each other across their edges, thus forming a practically impervious panel or curtain.

Up-to-date louver slats for jalousie windows were solid and made of wood, glass or metal and were fastened to the jalousie window jambs either directly (in case of fixed louver slats), or by means of rockable clips. Metallic louvers are not adapted for use on home jalousies, particularly in hot climate countries, wood louver slats are subjected to warping, when they are not encased at their ends and glass louver slats are rather expensive, as they must be edged by grinding and polishing and furthermore, they are breakable and usually admit too much light.

Also hollow slats of extruded plastic material have been used in roller blinds, but the design of these slats is not adapted for jalousie windows and, furthermore, the attachment of said hollow slats to the window jambs would require the use of specially designed fastening means.

An object of the invention is to provide a composite louver including a louver board of extruded hollow plastic material and two side fittings adapted to be tongued or doweled into the hollow of the louver board and provided at their outside ends with substantially straight tongues adapted to be fastened like the usual solid louvers, usually glass louvers, by using commercial clips of standard design.

Still another object of the invention is to provide a composite louver slat comprising a hollow flat bar section made of plastic material and adapted to be fitted to commercial angular adjusting clips, thus permitting of replacing at will, completely or in part, the usual louvers made of glass or any other material and permitting of obtaining a substantially tight closure by rocking the louvers into edge-to-edge position, without need of expensive grinding and polishing of the plastic louver edges.

The above and other objects and advantages of the composite louver according to the invention will be apparent from the following specification.

In the annexed drawings, forming part of the specification:

FIG. 1 is a vertical section through a jalousie window provided with a known type of angularly adjustable louver clips which have been louvered, with the exception of the lower clip, with hollow louver boards according to the invention said louvers being rocked to closed position;

FIG. 2 is a section like that shown in FIGURE 1, but with the louver boards in open position;

FIG. 3 shows in plan view one end of a hollow louver board and a vertical section through the same louver board;

FIG. 4 shows two edge views and a plan view of an end fitting forming part of a composite louver; and

FIG. 5 is a plan view of one end section of a composite louver according to the invention.

With reference to FIGURES 1 and 2 of the drawings, by the reference numeral 10 are indicated the jambs of a frame of a conventional jalousie window provided with louver clips 6 fastened to one end of rocking levers 7 the other end of which is hinged to an actuator bar 8 to be actuated, for example through link 9 by conventional means, as the hand crank shown in FIGURE 1.

As shown in the lower part of FIGURES 1 and 2, the clips 6 are usually constructed for holding relatively thin and straight solid louver boards or glass louver edges, so that they are not adapted to mount much thicker hollow slats of extruded plastic material, as usually employed in modern roller blinds.

Now, the use of hollow extruded slats of plastic material as louvers of jalousie windows is rended possible by attaching to each end of suitably shaped hollow slats or louver boards B cut to prescribed length, preferably an end fitting L, FIG. 4, comprising central solid body having the same section as the louver boards B and provided at one side with protruding tongues or dowels D adapted to be fitted into the corresponding hollow ends of the louver boards B, FIG. 3, and at the opposite side with a protruding edge E, FIG. 4, adapted to be snugly inserted into the conventional clips 6, FIGURES 1 and 2, instead of the usual solid louvers of wood, glass or other material.

Also the fitting L may be made of suitable plastic material, such as vinyl material, and preferably of the same material as the louver boards B.

The louver boards B and the central body of the fittings L are preferably slightly bent in S shape, and are provided with halved horizontal edges J and H respectively, which, when the louvers are rocked to closed position (FIGURE 1) abut against like halved edges of adjoining louvers and provide a substantially tight joint.

From the foregoing it is apparent that the improved composite louvers comprising hollow louver boards B provided with end fittings 4, according to the invention, not only may be manufactured at low cost and provide a good heat insulation, but may easily replace, whenever required, conventional glass or wood louvers and, due to the elasticity of the plastic material in correspondence of the relatively thin halved edges H, J, and to the presence of a stepped part between the louver body and their edges, ensure a better tight closure when the louvers are rocked to closed position.

I claim:

1. A jalousie window comprising a sash having a pair of jambs, a number of pairs of spaced conventional clips rockably mounted on said jambs and adapted to clamp conventional, thin flat and solid louver slats, means for simultaneously rocking said clips from an inclined position to a substantially vertical position in which the ends of said clips come substantially into contact with adjoining clips, a plurality of composite slats, each comprising a hollow rigid slat body of plastic material having an overall thickness greater than that of said clips, a pair of projecting adaptor members removably pressed into

the hollow ends of said slat body, said adaptor members each including a central section conforming in shape and thickness to and extending and closing the end of said slat body, at least one dowel at one side of the central section snugly fitted into the hollow end of the slat body, and a substantially flat end tongue on the other side of the central section having a thickness considerably less than the thickness of said slat body and substantially equal to that of said clips, said flat end tongues of said pair of adaptor members fitting into and being clamped by a pair of said rockable clips, whereby said composite louver slats are replaceably held by said clips without the use of additional fastening means and without altering said clips when conventional solid louver slats are replaced by said hollow slats.

2. A jalousie window according to claim 1 wherein both longitudinal edge portions of each of said slat bodies are of reduced thickness.

3. A jalousie window according to claim 1 wherein said central section of the said adaptor members and said hollow slat body have slightly curved S-shape in end profile.

4. A jalousie window according to claim 1 wherein each of said hollow slat bodies at each end is provided with at least one internal bracing member connecting opposed walls of the slat body and forming with the walls of said slat body a recess in the end of the slat body, said recess snugly receiving said dowel on the cooperating adaptor member.

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