This invention relates to new and useful improvements in external Venetian blinds or jalousies for use on windows, doors and other openings of buildings.

One object of the invention is to provide an improved jalousie having adjustable coacting louvers of such construction that when closed the passage of wind, rain or other moisture therebetween is substantially prevented.

Another object of the invention is to provide an improved jalousie of the character described, having improved means carried by one longitudinal edge portion of each louver for directing with the adjacent louver to trap any wind, rain or other moisture that is blown or otherwise passes between said louvers.

A further object of the invention is to provide an improved jalousie, of the character described, wherein an inverted trough is formed at the upper longitudinal edge portion of each louver for overlapping and cooperating with the lower longitudinal edge portion of the adjacent louver so as to trap and direct downwardly and outwardly any wind, rain or other moisture that passes between said louvers when closed or partly open.

Still another object of the invention is to provide an improved jalousie, of the character described, wherein the inverted troughs of the louvers are formed by rolling the upper longitudinal edge portions of the said louvers forwardly and downwardly upon themselves.

A construction designed to carry out the invention will be hereinafter described together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, wherein an example of the invention is shown, and wherein:

Fig. 1 is a perspective view of a jalousie constructed in accordance with the invention.

Fig. 2 is a vertical, sectional view of a portion of the jalousie, showing the relation of its louvers when closed.

Fig. 3 is a view, similar to Fig. 2, showing jalousie louvers open, and,

Fig. 4 is a horizontal, cross-sectional view, taken on the line 4—4 of Figure 3.

In the drawing, the numeral 10 designates an external Venetian blind or jalousie having a rectangular frame 11 of sheet metal which includes upright side members or stiles 12 and upper and lower members or rails 13. The frame 11 substantially conforms in size to the opening of a conventional window frame 14 and has an inwardly-directed base flange 15 made integral with each of its frame members 12 and 13 for attachment to the window frame by suitable screws 16 (Fig. 4). To provide space for the usual actuating bar or link 17, the stiles 12 have their outer edge portions 18 of their inner portions as shown by the numeral 18 and are connected to said inner portions by transversely inclined legs 19.

A plurality of horizontal, parallel louvers 20, having sheet metal body portions 21 and laterally or rearwardly directed wings or flanges 22, are pivotally supported by the frame 11 in overlapping relation. The louvers 20 are disposed between the outer portions 18 of the stiles and have their wings 22 pivotally attached to said stile outer portions in parallel relation by rivets 23 or other suitable means. It is preferable to position the rivets 23 adjacent the forward edge portions of the louver wings and substantially midway between the longitudinal edge portions of the louver. A rivet 24 connects the actuating link 17 to the upper, rear portion of each louver wing, it being noted that a single link on one side of the frame is ordinarily sufficient for operating the louvers. When the louvers are closed, the forward edge portions of their wings overlap and inset pockets or recesses 25 are formed in the upper edge portion of each wing to accommodate such overlap (Fig. 2). In this manner, the louver wings fit snugly against the stile portions 18.

The body portions 21 of the louvers are crowned or curved transversely to an extent sufficient to increase their rigidity and have their convex surfaces exposed or directed forwardly. Each body portion has its lower longitudinal edge rolled rearwardly and upwardly upon itself to provide a marginal lip or bead 26 which is substantially circular in cross-section (Fig. 2). When the louvers are closed, the marginal beads 26 overlie or overlap the upper longitudinal edge portions of the adjacent lower louvers and bear thereagainst for sealing off between said louvers. The upper edge portions of the louvers extend above these marginal beads and are curved forwardly and downwardly upon themselves so as to provide inverted, semi-cylindrical troughs or traps 27 which overlie and terminate immediately above said beads, being spaced from the beads and their louvers. A suitable inclined flange 28 overlies and coats with the upper edge portion of the uppermost louver, while the lower edge of the lowermost louver coats with a similar underlying flange 29.
Manifestly, substantially all wind, rain and other moisture is prevented from being blown or passing between the closed louvers by the overlapping engagement of the beads 26 with the upper edge portions of the adjacent louvers. Any wind, rain or moisture that enters between the longitudinal edge portions of the louvers is trapped by the troughs 27 and is directed downwardly and outwardly and excess moisture flows to and escapes at the ends of said louvers. Even when the louvers are partly opened, the troughs function to deflect wind, rain or moisture downwardly to impede, if not prevent, the passage thereof between the louvers. By spacing the troughs from the adjacent beads and their louvers, the necessity for close tolerances is eliminated and there is no danger of marring or otherwise damaging the finish of the edge portions of said louvers.

The foregoing description of the invention is explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent is:

1. A jalousie including, a frame, a plurality of adjustable louvers extending across and pivotally supported by the frame, the louvers having overlapping longitudinal edge portions with the lower edge portions overlying and engaging the upper edge portions when said louvers are closed, and inverted troughs formed on said upper edge portions above said lower edge portions and closely spaced thereto to trap and prevent the passage of wind, rain and other moisture between said louvers, and troughs on the lower edges of the louvers directed inwardly and underlying the inverted troughs on the upper edges of the next below louvers when the louvers are closed.

2. A jalousie as set forth in claim 1 wherein the troughs on the lower edges of the louvers include portions directed inwardly toward the outer face of the next below louver, and lips on said inwardly-directed portions directed toward the upper edges of the louvers, the upper extremity of each lip extending inwardly toward the inner face of the louver carrying that lip whereby the lower edge troughs are partially enclosed.

JESSE E. BUSH.

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