

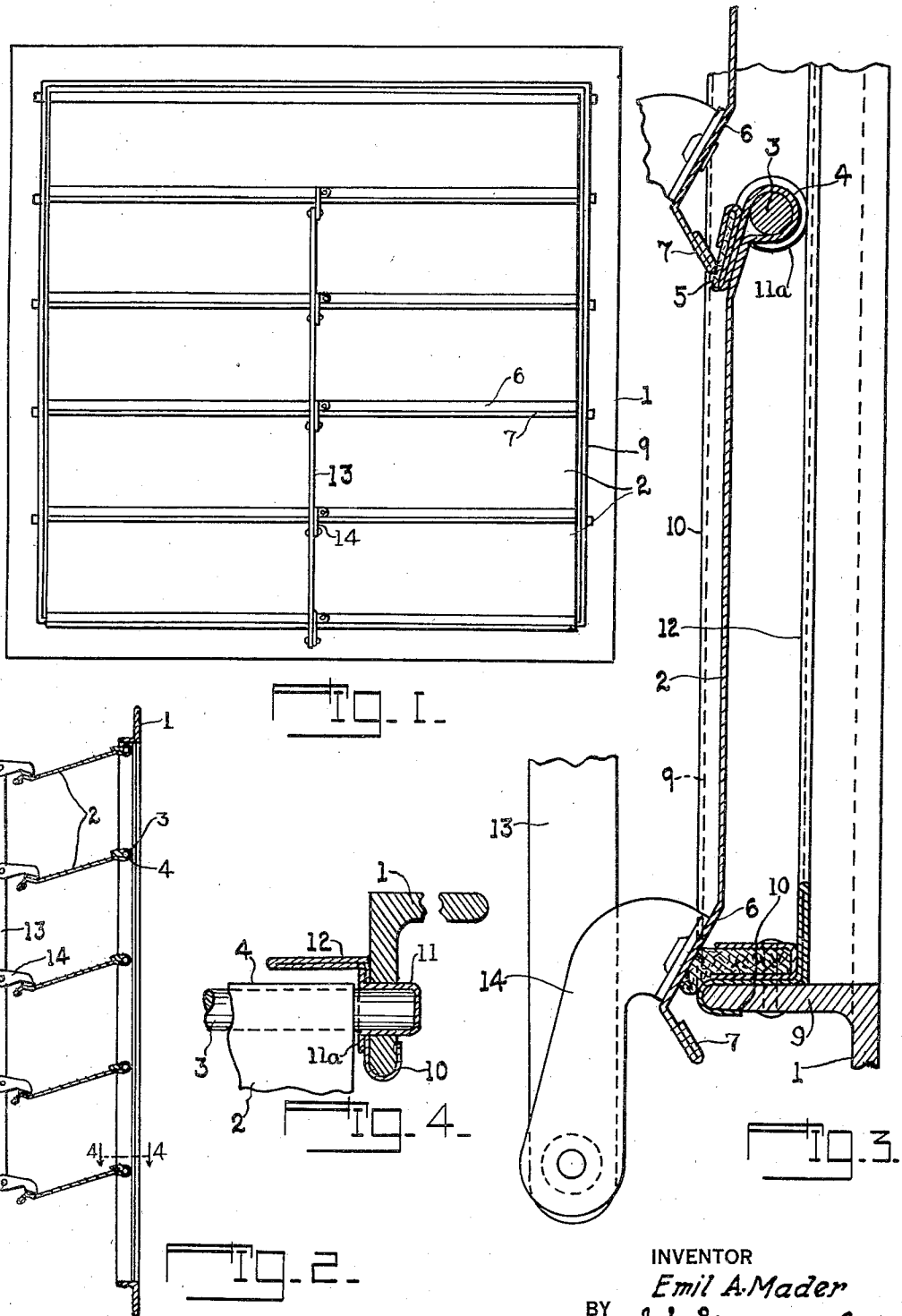
July 30, 1935.

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2,009,740

LOUVER CONSTRUCTION

Filed June 18, 1934



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UNITED STATES PATENT OFFICE

2,009,740

LOUVER CONSTRUCTION

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Application June 18, 1934, Serial No. 731,060

3 Claims. (Cl. 98—121)

This invention relates to louvers and particularly louvers for ventilating use.

An object of the invention is to provide an improved mechanism for connecting a set of pivoted louvers to swing in unison.

Another object is to provide rods pivotally mounting a set of louvers in a suitable frame and to use said rods to maintain engagement of a sheet metal weather strip with the frame, and to utilize the weather strip to properly position said rods longitudinally.

A further object is to establish an improved weather seal between the louvers, when closed.

A still further object is to provide an improved swinging connection between the louvers to effect their operation in unison.

These and various other objects the invention attains by the construction hereinafter described and illustrated in the accompanying drawing, wherein:

Fig. 1 is a front view of the louver construction, showing the louvers closed.

Fig. 2 is a vertical sectional view of the same, showing the louvers opened.

Fig. 3 is a fragmentary vertical sectional view, showing the louvers closed.

Fig. 4 is a fragmentary section, taken on the line 4—4 of Fig. 2, showing the engagement of one of the pivot rods with the frame.

In these views, the reference character 1 designates a frame, constructed of angle bars, and forming a rectangular opening within which a set of horizontally elongated sheet metal louvers 2 are pivoted, one above another. Said louvers are mounted on cylindrical pivot rods 3 which are terminally set into the uprights of said frame, the upper marginal portion of each louver being rolled to form a sleeve 4 snugly receiving one of said rods. The relation of the louvers to said sleeves is substantially tangential, each sleeve being rearward of the plane of its louver. A marginal portion of the metal sheet forming each louver projects slightly beyond the corresponding sleeve 4 upon the front face of the louver and is bent and return-bent to an approximate S shape, a felt sound deadening pad 5 being clamped between the middle ply and outer ply of said portion and projecting upon the middle ply to its lower edge.

The lower marginal portion of each louver is bent angularly forward, as indicated at 6, whereby when the louvers are closed and occupying the same vertical plane, the portion 6 of each louver (excepting the lowermost) may overlap the top portion of the underlying louver. Each

portion 6 has its free edge portion reinforcingly folded upon itself as indicated at 7, and bent at an inclination reverse to that of the adjacent portion 6 whereby each such portion is adapted to seat rearwardly against the felt strip 5 of the underlying louver, when the louvers are closed. The portion 6 of the lowermost louver is adapted to bear against a felt sound deadening pad suitably secured to the bottom member of the frame 1.

Marginally of the opening of said frame, the latter, by virtue of its angle bar construction, has forwardly projecting flanges 9, each whereof is snugly embraced by a U-shaped sheet metal weather strip 10. The rods 3 pass through the inner walls of this weather strip thereby retaining the strip securely on the frame. Said rods are terminally mounted in sheet metal socket members 11, set into said opening of the weather strip and into registering openings of the frame uprights, said members having annular outstanding flanges 11a at their inner ends and having closed outer ends, whereby said members and the pivot rods are restrained from longitudinal shifting.

Adjacent to the sleeves 4, at the rear thereof, the weather strips 10 have portions 12 projecting into the frame opening, each such portion being return-bent upon itself and thereby materially stiffened.

The several louvers are connected for actuation in unison by a metal strap 13, pivoted to brackets 14 riveted to the front faces of the louvers, adjacent to their lower edges, said connection being established preferably midway between the louver extremities. Said brackets project some distance below the lower edges of the louvers and engage the strap 13 remotely from the louvers, whereby said strap has adequate clearance from the louvers, as the latter swing.

In use of the described construction, the frame 1 may be suitably secured within a ventilating opening in a wall (not shown), in opposed relation to the outlet of a fan (not shown) for discharging air through said opening. Normally, the louvers will assume, of their own weight, a closed position, and the discharge from said fan, when in operation, automatically opens the louvers to permit such discharge. The pads 5 minimize noise due to closing of the louvers or to their vibration, when closed.

The construction permits of rapid assembly and establishes an efficient weather seal between the closed louvers and between the latter and the frame.

The invention is submitted as including all such

modifications and changes as come within the scope of the following claims.

What I claim is:

1. In a louver construction, a frame forming an opening, a plurality of rods extending within and across said opening, and spaced one above another, louvers individually suspended upon said rods, and overlapping in substantially vertical positions to close said opening, sleeves formed integrally with said louvers and receiving said rods, each louver having an edge portion extending beyond said sleeve, and sound-deadening pads secured to said extension of each louver for engagement by an edge portion of an overlying louver, when the louvers are closed.

2. In a louver construction, a frame forming an opening, a plurality of rods extending within and across said frame, one above another, and terminally journaled in said frame, louvers formed with sleeves receiving said rods, and suspending the louvers on the rods, said louvers overlapping in corresponding positions thereof to close said opening, each louver having a marginal portion projecting beyond its sleeve return-bent toward

said sleeve to form a seat and again return-bent to form a clamping jaw, and a pad clamped between said jaw and seat projecting on said seat beyond said jaw for engagement by a free edge portion of an overlying louver, in the closed positions of the louvers.

3. In a louver construction, a frame forming an opening, a plurality of substantially parallel rods extending within and across the opening, louvers individually mounted on the rods and adapted to overlap to close said opening, sheet metal weather strips interposed between the ends of the louvers and the frame, said strips and the frame having openings, registered with said rods, and socket members inserted in said openings to receive and journal the ends of the rods, the socket members having closed ends engageable by the rods to restrain the rods from endwise play and thereby maintain clearance between the louvers and weather strips and the socket members having flanges seating against the weather strips, whereby the rods act, through the socket members, to hold the weather strips against the frame.

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