Oct. 18, 1960 A. L. SIMBLEST 2,956,496

COMBINED FLUSH AND SELF-FRAMING VENTILATING LOUVER

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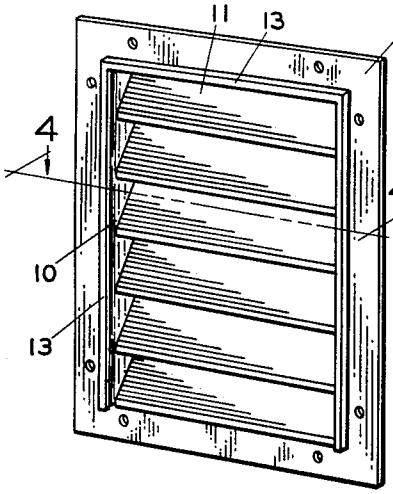


FIG. 1

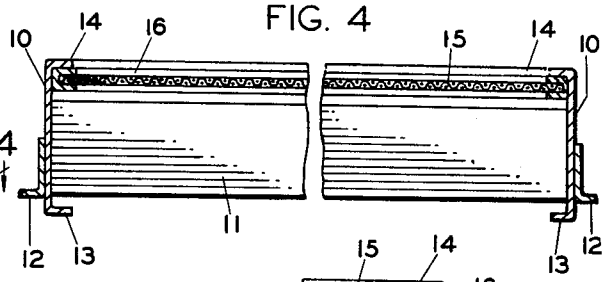


FIG. 4

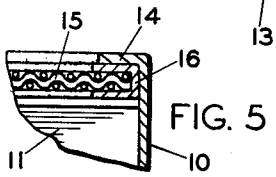


FIG. 5

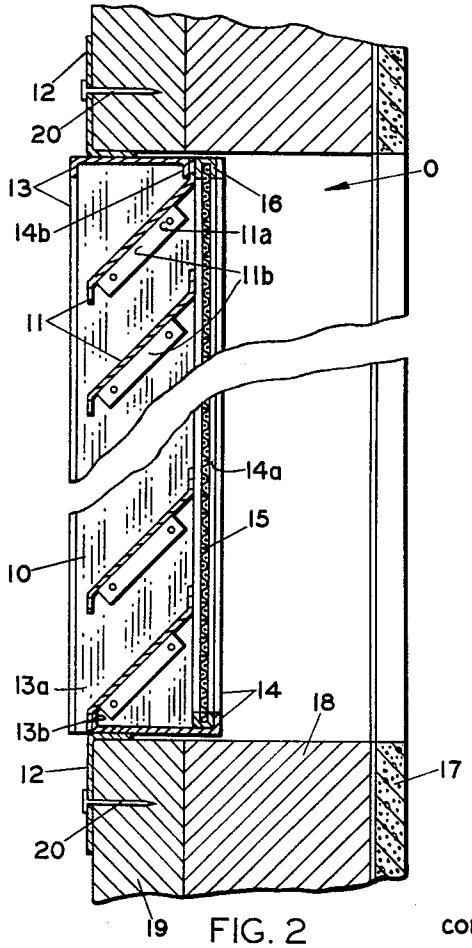


FIG. 2

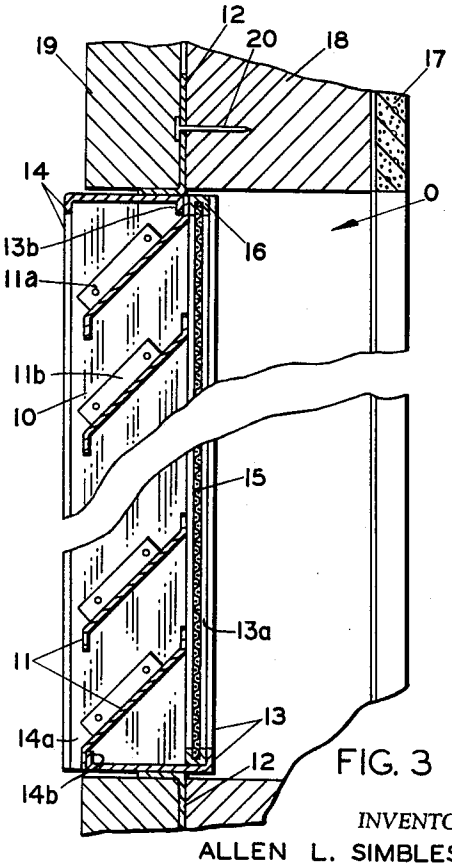


FIG. 3

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COMBINED FLUSH AND SELF-FRAMING VENTILATING LOUVER

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2 Claims. (Cl. 98—121)

My invention relates to a ventilating louver. It has to do, more specifically, with a ventilating louver or grille formed of sheet metal such as aluminum.

Ventilating louvers for openings in buildings have in years past commonly been made and sold in two general types, namely, the flush type for old construction and the self-framing or recess type for new construction. On the flush type there is a peripheral flange at the outer edge of the louver frame which overlaps the edge of the opening at the outer face of the building wall. On the recess type there is a peripheral flange intermediate the inner and outer edges of the louver which is disposed in a recess in a building wall as it is built around the louver or is covered by the final facing of a frame wall, such as by lap-siding, paneling, etc. Obviously, it would be desirable to overcome the necessity of manufacturing, stocking, and supplying two general types of louvers. The structure disclosed in my prior Patent No. 2,752,844 overcomes this difficulty, but the present invention provides an improved louver structure, whereby it is possible to provide a single louver structure which is devoid of adjustable movable parts and which is capable of use as either a "flush"-type louver, or a "self-framing"-type of louver.

It is, therefore, the primary object of the present invention to provide a ventilating louver of relatively simplified construction which may be used either as a "flush"-type louver in connection with existing wall structures, or as a "self-framing"-type louver in connection with the erection of a new lall structure.

Another object is to provide a combination ventilating louver of this character which includes means for supporting and maintaining an insect-excluding screen at the inner face of the louver when the latter is used either as a "flush"-type louver, or as a "self-framing"-type louver.

In the accompanying drawing, there is illustrated a preferred embodiment of my invention.

In this drawing:

Figure 1 is a perspective view of a louver formed in accordance with the present invention.

Figure 2 is a medial, vertical sectional view taken through the present louver and an associated building wall and illustrating a "flush" arrangement.

Figure 3 is a similar view showing the louver arranged in "self-framing" position.

Figure 4 is a horizontal sectional view taken along line 4—4 of Figure 1.

Figure 5 is an enlarged, fragmentary, horizontal sectional view taken through one corner of the louver and showing an edge of the screen and the associated retaining flange provided on the frame of the louver.

With reference to the drawing, Figure 1 shows a complete louver made according to my invention. The louver consists of the channel frame **10** which may be of rectangular or square form. The frame supports the usual transverse slats **11** which are inclined downwardly and outwardly relative to the outer face of the louver,

the slats being formed with end tabs **11***b* which are riveted, or otherwise suitably secured, to the frame as at **11***a*. The longitudinal edges of the slats **11** are bent upwardly and downwardly respectively to occupy vertical planes spaced inwardly from the opposite open faces of the frame **10**.

To support the frame in an opening in a building wall, I provide the outwardly directed peripheral flange **12** which is secured to and extends completely around the frame **10** on all sides thereof. This flange is of generally L-shaped cross section and is so disposed relative to the inner and outer faces of the frame **10** that the flange can be used as an attaching means either with an existing wall construction, as shown in Figure 2, or in the erection of a new wall construction, as illustrated in Figure 3. For this purpose, the flange is secured to the frame **10** at a point spaced very slightly inwardly from one face and substantially inwardly from the other face.

The frame **10** is formed at its opposite open faces with inwardly turned flanges **13** and **14** which, respectively, extend around three sides of the opposite faces of the frame to define, with the vertical longitudinal edges of the slats **11**, a downwardly opening screen-receiving channel **13***a* and an upwardly opening screen-receiving channel **14***a*, as viewed in Figure 2. Removably positioned in the upwardly opening channel **14***a* on the rearward face of the frame, is in insect-excluding screen member composed of a rectangular screen mesh body **15** having a marginal edge-reinforcing and rigidifying frame **16**. As will be noted by reference to Figs. 2 and 3 of the drawing, the portions of the frame **10**, adjacent the open ends of the channels **13***a* and **14***a*, are slightly foreshortened and are turned inwardly of the frame to provide lips **13***b* and **14***b* which abut against the upper and lower slats **11**.

As will be readily understood by those skilled in the art, it is desirable, if not necessary, that the louver slats **11** be arranged so as to slant generally downwardly toward the outer surface of the associated building wall, in order to prevent rain water from entering the building structure by way of the ventilator-receiving opening formed in the wall structure. At the same time, the insect-excluding screen member should be positioned rearwardly of the slat members so as to be protected against puncture or tearing by objects coming into contact with the outer wall surface adjacent the ventilator. Thus, where it is desired to use the present ventilating louver in an existing and completed wall structure, that is, where a "flush"-type ventilator is desired, a suitable opening O is formed through the wall structure which usually comprises an inner finish layer or surface **17**, an intermediate structural layer **18** and an outer or exterior surface layer or veneer **19**. The area size of the opening closely approximates the size of the frame **10** of the louver so as to snugly receive the latter, as shown in Figure 2. In this instance, the peripheral mounting flange **12** of the louver overlies the exterior paneling or veneer **19** of the building wall and the louver is securely fastened to the wall structure by means of nails, or other suitable fasteners **20**, driven through the flange **12** and into the wall structure. In the installation shown in Fig. 2, the inturned channel-forming flanges **13** project only slightly beyond the outer wall surface and hence are substantially flush therewith.

When it is desired to employ the present ventilating louver as a "self-framing" louver, which is installed at the time the associated wall structure is being built, the position of the louver is merely reversed and inverted from that shown in Fig. 2, so that the parts will be arranged as illustrated in Fig. 3 of the drawing. In the "self-framing" position, the mounting flange **12** is disposed inwardly of the wall structure and is secured to the

intermediate structural layer **18** of the wall and is covered by the outer veneer or paneling **19**. As will be understood, in shifting the position of the louver between "flush" (Fig. 2) and "self-framing" (Fig. 3) positions, the screen member **15** is removed from the channel **14***a* and placed in the channel **13***a*, in order that such screen member will always occupy a position at the rearward face of the louver.

In view of the foregoing, it will be seen that the present single ventilating louver construction eliminates the necessity for building suppliers stocking two different types and constructions of louvers as has been the practice heretofore, in order to provide both "flush" and "self-framing" types. At the same time, the present louver constitutes an improvement on the adjustable-type louver disclosed in my prior U.S. Patent No. 2,752,844 in eliminating the need for relatively slidable and adjustable frame parts and the attendant complexities and expense of manufacture.

According to the provisions of the patent statutes, the principles of this invention have been explained and have been illustrated and described in what is now considered to represent the best embodiment. However, it is to be understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

Having thus described my invention, what I claim is:

1. A combination "flush" and "self-framing" type ventilating louver comprising a generally rectangular and annular box-like frame adapted to occupy a substantially vertical position within an opening formed in a building wall, said frame being formed with oppositely disposed, open, rectangular faces and inwardly turned flanges extending around three sides of each of said faces and defining a screen-receiving channel at each face of said frame, said screen-receiving channels opening, respectively, at the upper and lower ends of said frame; a plurality of relatively vertically spaced and inclined slats carried transversely within the boundaries of said frame; a generally vertically arranged peripheral mounting flange rigidly secured to said frame and extending outwardly from the four sides thereof, said mounting flange being disposed in a plane spaced inwardly from both open faces of said frame, but being disposed closer to one face of said frame than the other; and a screen removably positioned within the screen-receiving channel which opens at the upper end of said frame.

2. A combination "flush" and "self-framing" type ventilating louver comprising an annular rectangular, open-faced frame including a pair of vertically spaced, substantially flat end members and a pair of transversely spaced, substantially flat side members, the side and end members of said frame being formed along their edges with inwardly turned flanges defining a pair of screen-receiving channels disposed respectively adjacent each of the open faces of said frame, each of said channels opening respectively at opposite ends of said frame to receive therein an insect-excluding screen; a peripheral mounting flange rigidly secured to and extending outwardly from the side and end members of said frame, said mounting flange being disposed in a plane spaced only slightly inwardly from one of the open faces of the frame and closely adjacent one of said screen-receiving channels; a plurality of relatively spaced parallel, vertically inclined slats extending transversely between and connected with the side members of said frame, said slats having longitudinal edges terminating inwardly of the screen-receiving channels of said frame; and a rectangular screen removably carried within one of the screen-receiving channels of said frame.

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