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2,995,079

CLOSURE TYPE SCREENED VENTILATOR

Filed Jan. 12, 1959

2 Sheets-Sheet 1

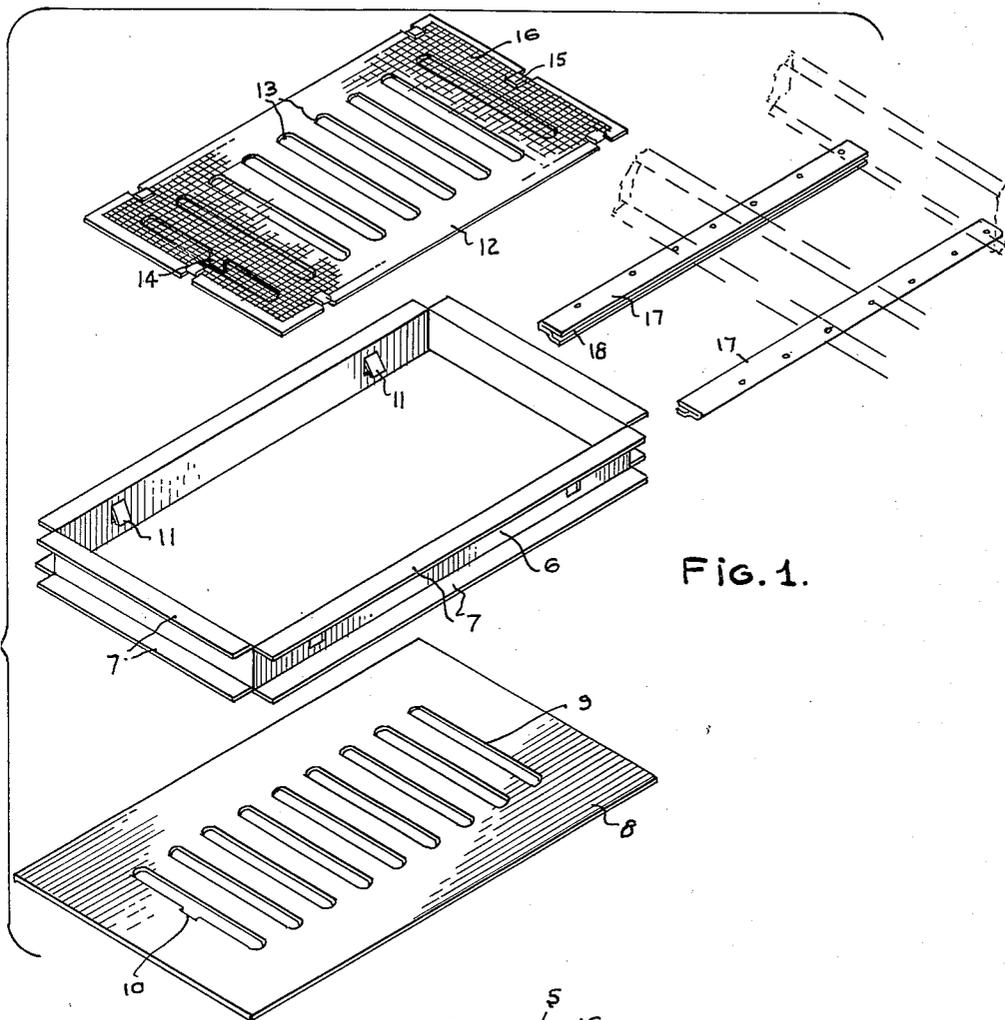


FIG. 1.

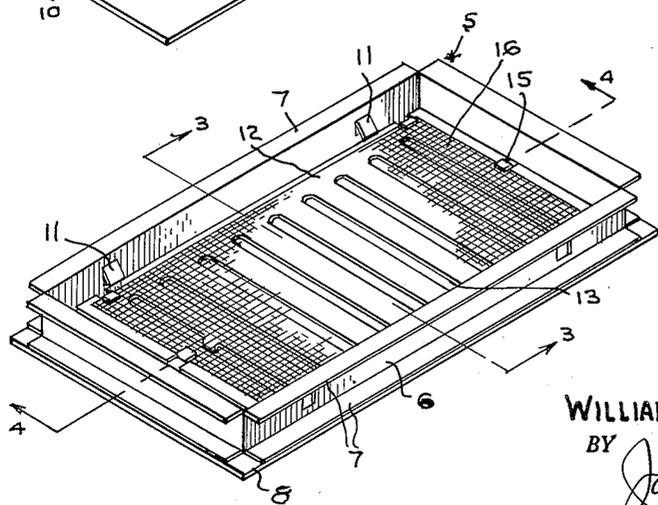


FIG. 2.

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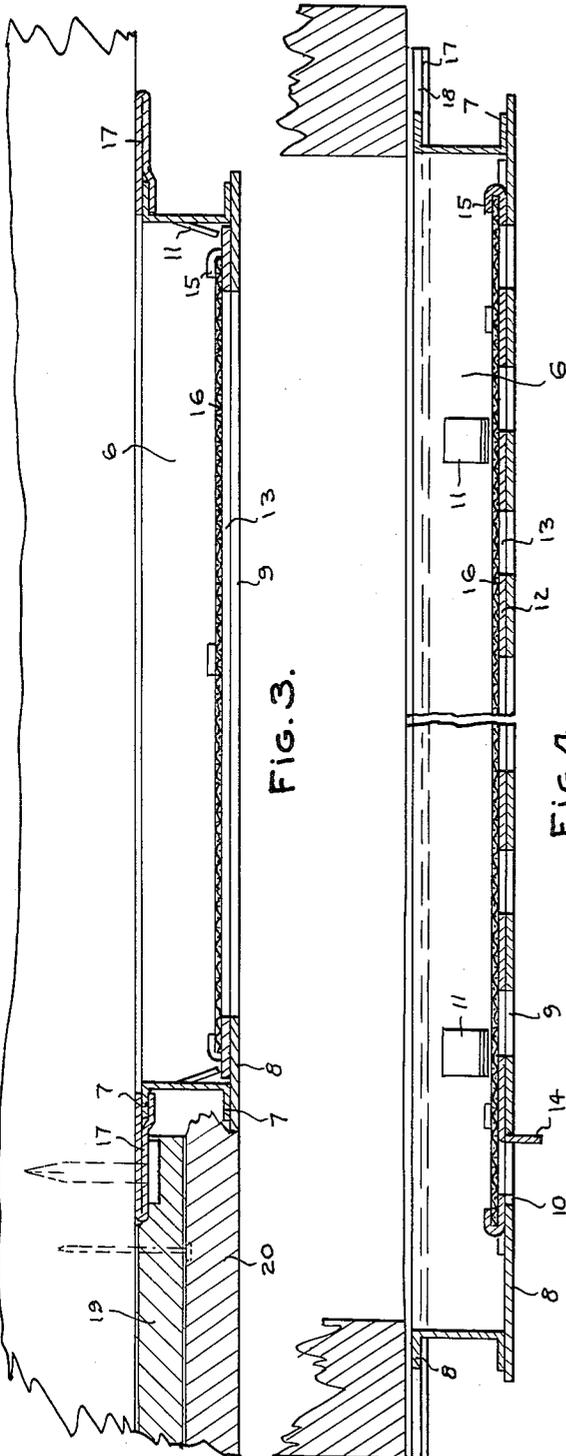


FIG. 3.

FIG. 4.

FIG. 5.

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1

2,995,079
CLOSURE TYPE SCREENED VENTILATOR
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 Filed Jan. 12, 1959, Ser. No. 786,198
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This invention relates to a ventilator device for ventilating clothes closets and other confined areas and which may be initially mounted within the ceiling or side walls of the structure.

The device contemplates a metallic ventilator having a main frame, a slotted bottom plate connected with the frame and an insertable slotted slide that has snapping engagement within the frame to overlie the base plate and that is shiftable longitudinally whereby to bring the slots into registry and with the slide plate being provided with a section of insect screening. The invention further comprises means for the novel mounting of the ventilator device upon the joist or upon the studding prior to the application of the conventional plaster board and plaster and whereby the device is of such dimensions that the conventional thickness of plaster will be substantially flush with the base plate.

It has been customary in forming ventilating means for clothes closets or the like by first framing a suitable opening, after which the plaster is applied to the walls or ceiling and subsequently, the framing is covered with a section of insect screening and suitable trim material, being a relatively expensive means of ventilating the closet and also failing to provide any means for closing the ventilator during adverse weather conditions and where the normally heated home loses a considerable amount of heat through this type of ventilator. The ventilator of this application is a preformed assembly and is installed upon guide rails either the studding of the joist prior to the plastering of the room and readily adapts itself to the various spacings of the studs or joist. Further, it provides for the slotted base plate and the slotted slide and with a finger device carried by the slide that projects beyond the outer face of the base plate and whereby the slide may be actuated in a simple manner to shift the several slots to and from registry.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

FIGURE 1 is an exploded perspective view of the several component elements constituting the ventilator and the supporting rails therefor,

FIGURE 2 is a perspective view of the assembled ventilator,

FIGURE 3 is a transverse section taken on line 3—3 of FIGURE 2 and illustrating the ventilator in supported relation to the rafters,

FIGURE 4 is a longitudinal section taken on line 4—4 of FIGURE 3 and,

FIGURE 5 is a perspective view of one supporting slide rail.

Referring specifically to the drawings, the numeral 5 designates the ventilator as a whole, embodying a generally rectangular frame 6 having outwardly turned flanges 7 to constitute channels throughout the periphery of the frame. A lower closure plate 8 has fixed engagement with the lower flanges 7 of the frame and the plate 8 may be welded or otherwise rigidly connected thereto to form a bottom for the frame. The plate 8 is transversely slotted at 9 over its major area and one end slot 9 is additionally notched at 10 to receive a finger, to be

2

described. The longitudinal side walls of the frame 6 are struck inwardly to form inwardly angled tabs 11. Adapted to engage within the frame and to have snapping engagement past the tabs 11, is a slide plate 12. The slide plate 12 is transversely slotted at equidistantly spaced points 13 and with the spacing of the slots 13 coinciding with the spacing of the slots 9 of the base plate 8. One end slot 13 of the slide is provided with a depending finger 14 that projects downwardly through an end slot 9 of the plate 8 and whereby to furnish the means whereby the plate 12 is shifted longitudinally of the frame and in sliding overlying relation to the plate 8. At spaced apart points throughout the periphery of the plate 12, the material is cut and bent to form tabs 15 that overlie and secure a section of insect screening 16. The insect screening is thus fixedly held against displacement by the tabs 15, while the slide 12 is held against upward movement and in closely overlying relation to the base plate 8 by the tabs 11, thus providing a very novel type of ventilator having no screws or other fastening devices employed in the assembly. The entire device is preferably constructed of a material having a high resistance to corrosion such for instance as aluminum.

In the use of the device, it being first determined where the ventilator shall be located, the operator installs a pair of spaced apart channel members forming rails 17 by nails or the like that are driven into the rafters or the studding. The rails 17 are formed of metal that is bent upon itself to provide guides 18 and the spacing of the guides is such that it will receive the upper longitudinal flanges 7 of the ventilator frame 6. Thus, it becomes necessary for the installation of the device that the operator only install the rails 17 in their spaced apart relation to constitute guides or hangers for the ventilator structure. With the rails in position, the ventilator flanges are engaged within the channels or guides 18 of the rails 17 and shifted to the desired location with respect to the point where the opening is to be formed. With the ventilator in position as illustrated in FIGURE 3, the ceiling or wall can then be plastered by first applying the conventional plaster board 19 and then the usual coat of plaster 20. The coat of plaster 20 is of customary thickness and the depth of the ventilator has been calculated to dispose the base plate 8 at a point to be flush with the plaster 20. The plaster of course will flow into the channels formed by the flanges 7. When the ventilator is to be closed, the operator grasps the finger 14 and slides the plate 12 to the point where the finger seats within the notch 10 and in such position, the slots 9 and 13 will be in registry. If the ventilator is to be opened, the finger 14 is actuated to shift the plate 12 in the opposite direction, moving the slots 13 out of registry with the slots 9.

It will be apparent from the foregoing that a very novel type of ventilator has been provided. The structure is simple, easily assembled and easily installed and adapts itself to any area upon the wall or ceiling of the area to be ventilated. The plate 9 has sufficient frictional contact with the plate 8 as to prevent accidental sliding movement of the plate 12. Installation is extremely simple and results in a considerable saving in the cost of labor in the installation of ventilating openings within a confined area and provides a type of ventilator that may be easily moved from the open to the closed position.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claims.

3

4

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A wall or ceiling ventilator comprising, an open sheet-metal frame of rectangular shape provided upon its sides and ends with outwardly extending upper and lower flanges, a base plate fixedly connected to the lower side of the frame for closing the same, the plate being transversely slotted at spaced apart points, a sliding valve plate disposed within the frame in overlying slidable relation with respect to the base plate, the valve plate being also transversely slotted and having its slots spaced in accordance with the slots in the base plate, a sheet of insect screening disposed over the valve plate to overlie all of the slots, tabs bent from the edges of the valve plate and engaging the marginal edges of the screening, a plurality of spaced tongues struck inwardly from the sides of the frame, said tongues being directed toward the valve plate and having free ends disposed over the valve plate and effective to maintain the valve plate in facial contact with the base plate, the tongues being yieldable whereby the valve plate can be forced downwardly past them to underlie the free ends of the tongues, a downwardly-bent tongue formed on the valve plate, said tongue extending through one end slot of the base plate and forming a finger-piece by which the valve plate can be shifted to and from a point of registry with respect

to the slots, mounting rails fixed to a wall or ceiling framing, the rails being longitudinally grooved for the sliding reception of the upper side flanges of the frame to thereby adjustably support the frame with respect to a ceiling or wall.

2. A wall or ceiling ventilator as provided for in claim 1, wherein the said one end slot of the base plate is provided with a notch, the finger formed on the valve plate projecting downwardly for manual control of the valve plate and fitting within the notch for a full closure of the slots, the frame and base plate having a depth corresponding to the thickness of a plaster coat that is applied to the framing of the wall or ceiling to thereby form a gauge for such plaster thickness and to be flush with the plaster.

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