Sept. 23, 1952 N. COWAN 2,611,310

VENTILATING WALL BLOCK

Filed May 27, 1947 2 SHEETS—SHEET 1

Fig. 1

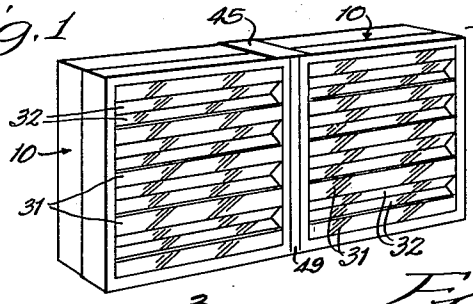


Fig. 8

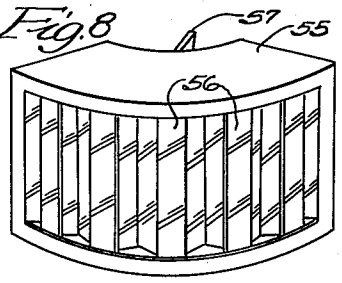


Fig. 2

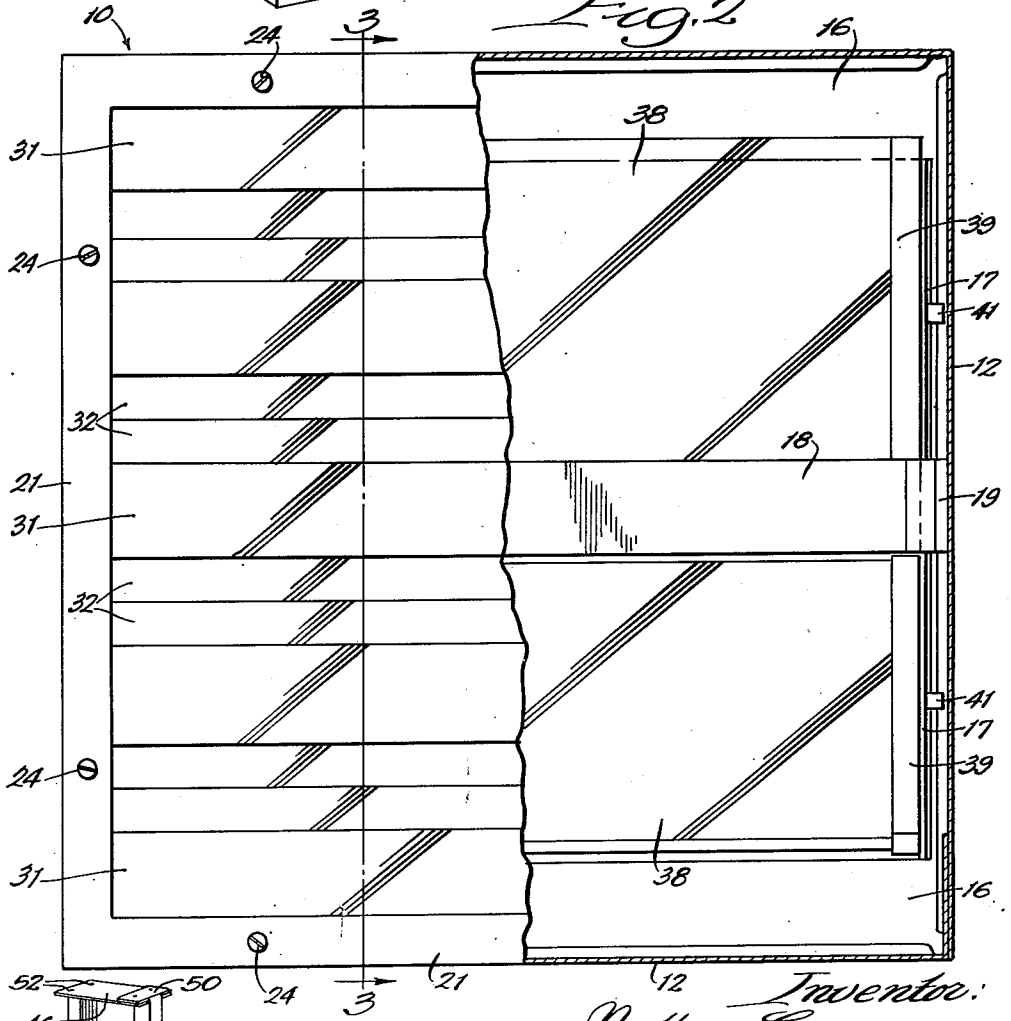
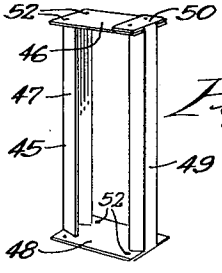


Fig. 7



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VENTILATING WALL BLOCK

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Fig. 3

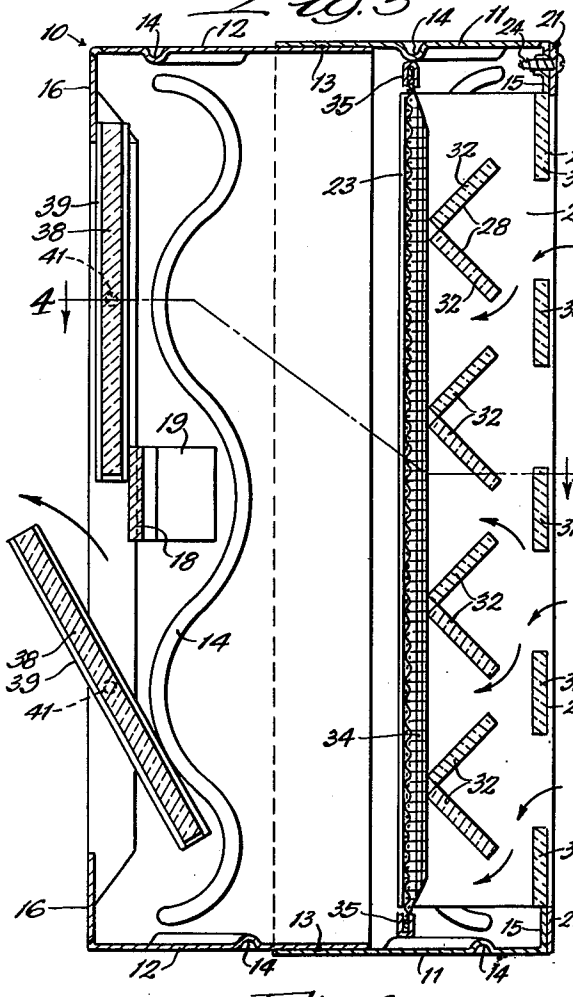


Fig. 4

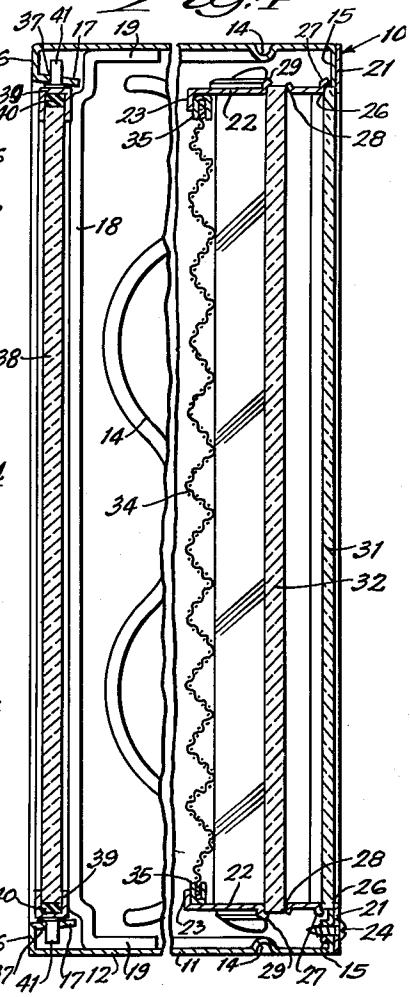


Fig. 6

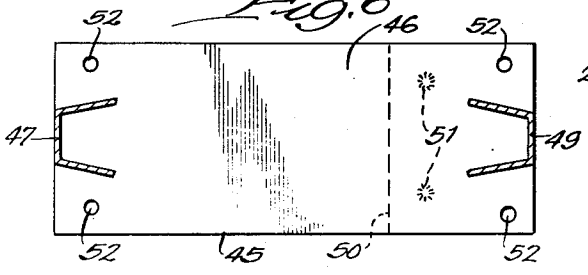
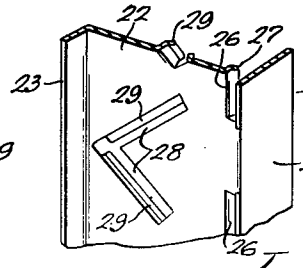


Fig. 5



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2,611,310

VENTILATING WALL BLOCK

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Application May 27, 1947, Serial No. 750,855

3 Claims. (Cl. 98—118)

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This invention is directed to ventilating wall blocks adapted to be incorporated in walls formed of light-transmitting blocks, such as glass blocks. This application is a continuation in part of my copending application Serial No. 735,719, filed March 19, 1947, now Patent No. 2,565,122.

The principal object of this invention is to provide improved wall blocks capable of being incorporated in walls formed of light-transmitting blocks which conform in size and appearance to such light-transmitting blocks, which also provide for transmission of light, which are provided with means for air to pass therethrough for ventilating purposes and for controlling the passage of air therethrough, which are provided with means for preventing water and rain from passing therethrough which are provided with means for preventing insects from passing therethrough, which are adapted for use in straight walls or curving walls, and which may be inexpensively manufactured and assembled.

Further objects of this invention reside in the details of construction of the ventilating wall block and cooperative relation between the component parts thereof. Preferably the ventilating wall block is fabricated from sheet metal with the component parts thereof so associated as to form a rigid construction and yet be inexpensively manufactured and pleasing in appearance.

Other objects and advantages will become apparent to those skilled in the art upon reference to the accompanying specification, claims and drawings, in which—

Fig. 1 is a perspective view of two ventilating wall blocks connected together;

Fig. 2 is a front elevational view of one of the ventilating wall blocks partly in section;

Fig. 3 is a vertical sectional view of the ventilating wall block taken substantially along the line 3—3 of Fig. 2;

Fig. 4 is a horizontal sectional view taken substantially along the line 4—4 of Fig. 3;

Fig. 5 is a perspective view through a portion of the front panel of the ventilating block;

Fig. 6 is a horizontal sectional view through the connector for the ventilating blocks;

Fig. 7 is a perspective view of the connector; and

Fig. 8 is a perspective view of a ventilating wall block of this invention for use in curving walls.

The ventilating wall block of this invention is generally designated at 10 and includes a hollow sheet metal body formed in two parts 11 and 12. The front part 11 telescopically receives the rear part 12 and the two are suitably secured together

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as by welding, as shown at 13. The side walls of the hollow sheet metal body are preferably indented, as at 14, to assist in the cementing of the ventilating blocks in the wall. The front of the hollow sheet metal body is provided with an inturned flange 15 and the rear thereof is provided with an inturned flange 16. Two of the sides of the inturned flange 16 are bent inwardly to form side flanges 17. A strip 18 extends across the rear of the hollow sheet metal body and is provided with ears 19 for securing the same to the side walls of the ventilating block.

A front panel 21 overlies the inturned flanges 15 on the front of the hollow body and the panel is provided with internal side flanges 22 extending into the hollow sheet metal body and the side flanges terminate in internal shoulders 23. The front panel 21 and the inturned front flange 15 are provided with matching holes for receiving sheet metal screws 24 for securing the front panel to the front of the hollow sheet metal body.

The internal side flanges 22 are provided with a plurality of spaced perforations or channels 26, which perforations or channels are vertically arranged parallel to the front face of the ventilating block. In the formation of the perforations 26 there are provided lips 27 extending outwardly. The side flanges 22 are also provided with perforations or channels 28 provided with lips 29 and preferably these perforations or channels are obliquely arranged behind the perforations 26.

Vertically arranged louvres 31 are received in the perforations or channels 26 and obliquely arranged louvres 32 are received in the perforations or channels 28 and are thus carried by the side flanges 22 therebetween. The lips 27 and 29 cooperate with the ends of the louvres 31 and 32 to prevent movement thereof with respect to the side flanges, thus securely holding the louvres in place. The louvres are preferably made of glass or other light-transmitting material.

A screen 34 provided with a frame 35 is interposed between the internal shoulders 23 and the louvres 32, and the screen 34 is preferably corrugated so as to engage the louvres 32 and thus hold the screen tightly in place against the internal shoulders 23.

The internal side flanges 17 at the rear of the ventilating block are provided with pivot holes 37 for pivotally supporting a pair of doors 38 which are preferably made of glass or other light transmitting material. The doors 38 are carried by brackets 39 with a resilient material 40 such as sponge rubber interposed therebetween. The

brackets 39 carry pins 41 which are received in the pivot holes 37. The resiliency of the resilient material 40 and the resiliency of the side flanges 17 form a friction seal between the sides flanges 17 and the door brackets 39 thereby preventing the passage of air when the doors are closed and thereby frictionally maintaining the doors in their adjusted positions. When the doors 38 are closed, they abut against the flanges 16 and the strip 18 to form a seal for the doors at these points. The doors may be adjusted to any position about their respective pivots 41.

The louvres 31 and 32 are so arranged as to keep rain from passing through the ventilating block but still permit the passage of air therethrough and the screen prevents the passage of insects therethrough. The doors operate to regulate the passage of air through the hollow sheet metal body and hence regulate the ventilation, and since the doors and louvres are made of glass or similar light transmitting material, light is permitted to pass through the ventilating block.

The general configuration of the ventilating block is similar to that of a conventional glass block utilized in forming glass block walls, and since the ventilating block passes light almost as readily as does the conventional glass block the ventilating block harmonizes well with the glass blocks and at the same time provides for ventilation.

If it is desired to mechanically connect two such ventilating blocks or any number of such ventilating blocks, a connector 45 may be utilized. The connector 45 may be made of sheet metal and includes end portions 46 and 48 fitting over the ventilating blocks and intermediate portions 47 and 49 which are channel shaped in cross section. The end of the intermediate portion 49 is provided with an end portion 50 which is spot welded to the end portion 46, as at 51, to form a unitary construction. The end portions 46 and 48 are provided with holes 52 for receiving sheet metal screws to secure the connector 45 to the ventilating blocks 10. The sides of the channel portions 47 and 49 are resilient and form a seal between them and the sides of the ventilating blocks. Fig. 1 shows two ventilating blocks connected together by a connector 45.

Fig. 8 discloses a ventilating block 55 of the type illustrated in Figs. 1 to 5 but adapted for curved walls instead of straight walls. Preferably the louvres 56 thereof are vertically arranged and the rear of the ventilating block is preferably provided with a single vertically arranged door 57.

While for purposes of illustration one form of this invention has been disclosed, other forms thereof may become apparent to those skilled in the art. Therefore, this invention is to be limited only by the scope of the appended claims and prior art.

I claim as my invention:

1. A ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow sheet metal body open at its front and rear and of the size of a light transmitting block and adapted to be incorporated as a block in the wall, an integral inturned flange on the front face of the sheet metal body all about the front opening, sheet metal louver supporting members providing channels for the reception of the ends of louvers, means for securing the sheet metal louver supporting members to the sheet metal body adjacent the front opening thereof, louvers carried in the front opening of the sheet metal body by the louver receiving channels provided by the sheet metal louver supporting members behind the internal flange, an integral inturned flange on the rear face of the sheet metal body all about the rear opening and having integral internal side flanges on two opposed sides of the rear opening, pivot holes in the side flanges, a door having pivot pins extending into the holes in the side flanges for pivotally mounting the door in the rear opening of the sheet metal body between the side flanges, a screen within the sheet metal body, and means for supporting the screen in the sheet metal body immediately behind the louvers.

2. A ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow sheet metal body open at its front and rear and of the size of a light transmitting block and adapted to be incorporated as a block in the wall, an integral inturned flange on the front face of the sheet metal body all about the front opening, sheet metal louver supporting members providing channels for the reception of the ends of louvers, means for securing the sheet metal louver supporting members to the sheet metal body adjacent the front opening thereof, louvers carried in the front opening of the sheet metal body by the louver receiving channels provided by the sheet metal louver supporting members behind the internal flange, an integral inturned flange on the rear face of the sheet metal body all about the rear opening and having a pair of integral internal side flanges on two opposed sides of the rear opening, a pair of spaced pivot holes in each side flange, a pair of doors having pivot pins extending into the holes in the side flanges for pivotally mounting the doors in the rear opening of the sheet metal body between the side flanges, a strip secured to the sheet metal body and extending midway across the rear opening of the sheet metal body between the two opposed side flanges and behind the doors, the doors engaging the strip and the inturned flange on the rear face of the sheet metal body when they are closed, a screen within the sheet metal body, and means for supporting the screen in the sheet metal body immediately behind the louvers.

3. A light transmitting and ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow sheet metal body open at its front and rear and of the size of a light transmitting block and adapted to be incorporated as a block in the wall, an integral inturned flange on the front face of the sheet metal body all about the front opening, sheet metal louver supporting members providing channels for the reception of the ends of louvers, means for securing the sheet metal louver supporting members to the sheet metal body adjacent the front opening thereof, a plurality of light transmitting louvers having their ends received in and carried by the louver receiving channels provided by the sheet metal louver supporting members behind the internal flange, an integral inturned flange on the rear face of the sheet metal body all about the rear opening and having integral internal side flanges on two opposed sides of the rear opening, pivot holes in the side flanges, a light transmitting door having pivot pins extending into the holes in the side flanges for pivotally mounting the door in the rear opening of the sheet metal body between the side flanges, a

screen within the sheet metal body, and means for supporting the screen in the sheet metal body immediately behind the louvers.

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