Aug. 21, 1951 N. COWAN 2,565,122

VENTILATING WALL BLOCK

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Fig. 1

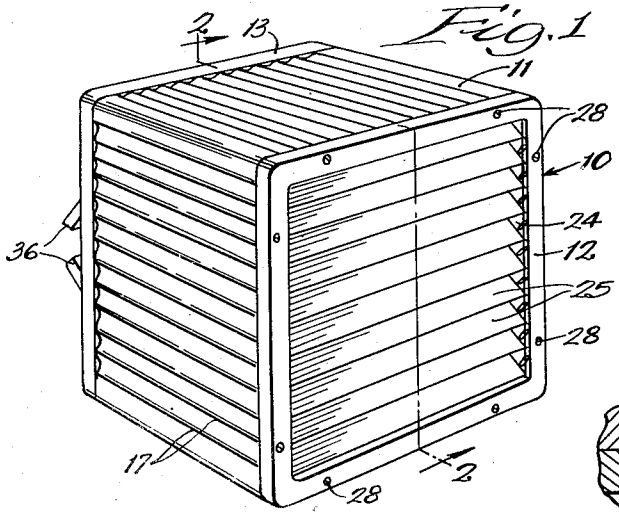


Fig. 2

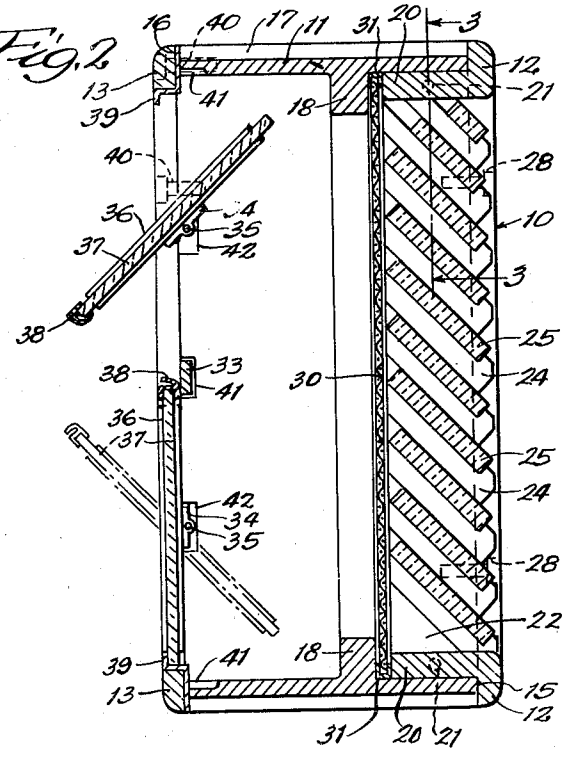


Fig. 3

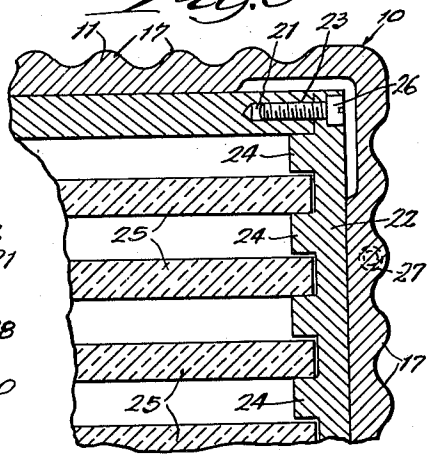
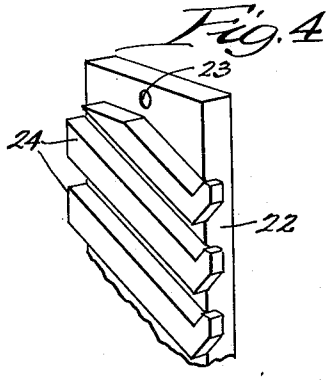


Fig. 4



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Fig. 5

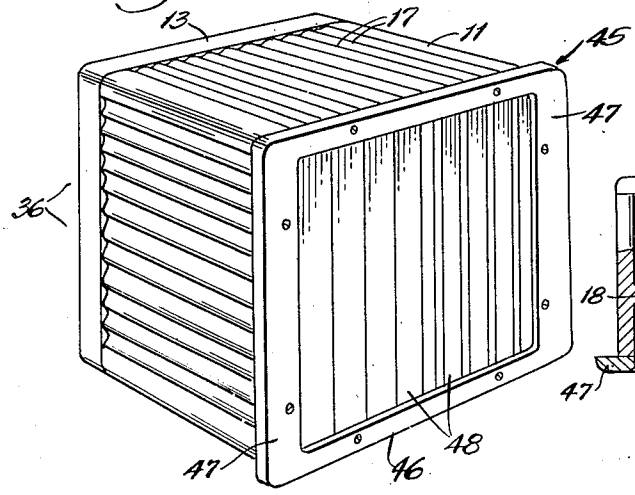


Fig. 6

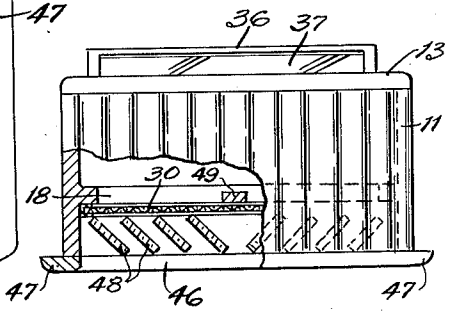


Fig. 7

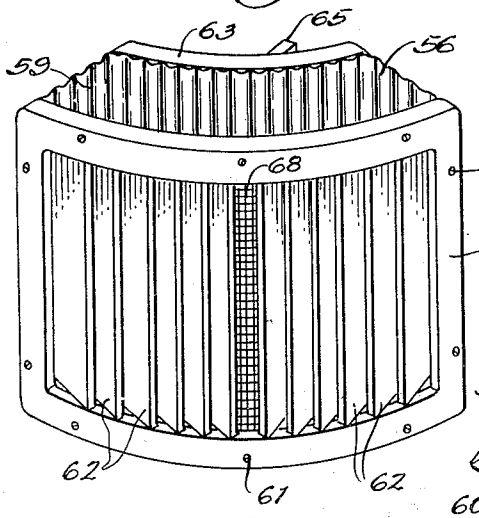
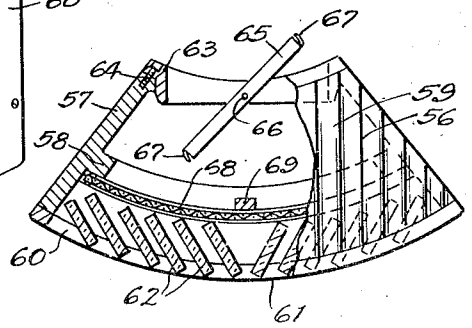


Fig. 8



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VENTILATING WALL BLOCK

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5 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.

The principal object of this invention is to provide 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 light transmission, which are provided with means for permitting air to pass therethrough for ventilation 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, and which are adapted for use in straight walls, gently curving walls and in sharply curving walls.

Further objects of this invention reside in the details of construction of the component parts of the ventilating blocks and the cooperative relation therebetween.

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

Figure 1 is a perspective view of a ventilating wall block adapted to be incorporated in straight walls;

Figure 2 is an enlarged vertical section taken substantially along the line 2—2 of Fig. 1;

Figure 3 is an enlarged partial sectional view taken substantially along the line 3—3 of Fig. 2;

Figure 4 is a perspective view of a portion of a side flange showing the manner in which the louvers are held in place;

Figure 5 is a perspective view similar to Fig. 1 but showing a ventilating block capable for use in gently curving walls;

Figure 6 is a plan view partly in section of the ventilating block of Fig. 5;

Figure 7 is a perspective view of a ventilating block capable for use in sharply curving walls; and

Figure 8 is a plan view partly in section of the ventilating block of Fig. 7.

Referring first to Figs. 1 to 4, the ventilating block capable for use in straight walls is generally designated at 10 and it includes a hollow body 11, preferably cast of aluminum, a front panel 12 secured to the front thereof, and a rear panel 13 secured to the rear thereof. The front and rear panels are also preferably cast of aluminum. The front and rear of the hollow body 11 are provided with faces 15 and 16 against which the panels 12 and 13 engage respectively.

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The outside of the hollow body 11 is preferably provided with corrugations 17 whereby the body may be firmly cemented in place in the wall. The interior of the hollow body 11 is provided with an internal shoulder 18.

The front panel 12 has upper and lower flanges 20 cast integrally therewith, and the ends of these flanges are provided with tapped holes 21. The flanges 20 are adapted to be received in the hollow body 11 when the front panel 12 is brought adjacent the face 15 of the hollow body 11. Separate side flanges 22 are provided and these side flanges have holes 23 registering with the tapped holes 21 of the top and bottom flanges 20. The side flanges 22 are provided with hooked supports 24 for receiving louvers 25. The louvers 25 are preferably made of glass or other light transmitting material. The louvers 25 are inserted between the hooked supports 24, and then the side flanges 22 are secured by screws 26 to the top and bottom flanges 20. The flanges 20 and 22 of the front panel 12 are then inserted in the hollow body 11 and the front panel 12 is secured to the face 15 of the hollow body 11 by means of screws 28 screwed into tapped holes 27 in the hollow body 11.

The louvers 25 overlap each other and prevent rain and water from entering the hollow body 11, and because they are made of a light transmitting material, light passes therethrough.

Located between the shoulder 18 and the flanges 20 and 22 is a screen 30 carried by a frame 31, and this screen operates to prevent insects and the like from entering the interior of the hollow body 11. The shoulder 18 retains the louvers 25 and screen 30 in place.

The rear panel 13 has secured thereto a transverse strip 33 and also four brackets 34 for holding pivots 35. Other brackets adjacent the brackets 34 are carried by the pivots 35 and are secured to a frame 36 carrying glass doors 37. The pivots 35, therefore, pivotally mount the glass doors 37 on the rear panel 13, and the doors may be swung open or closed about these pivots. The strip 33 operates to limit the closing movement of the glass doors. The sides and bottom of the top door and the sides and top of the bottom door are provided with resilient weather-stripping edges 38 formed on the door flanges 36 to prevent leakage of air therearound when the doors are closed. Thin metal strips 39 are provided for the top and bottom edges of the rear panel 13 and are held in place by screws 40 which secure the rear panel 13 to the hollow body 11. The strips 39 provide weatherproofing strips for the

top of the top door 37 and the bottom of the bottom door 37 and they also operate in conjunction with the strip 33 for limiting the closing movement of the doors. The hollow body 11 is provided with recesses 41 for receiving the ends of the strip 33 and with recesses 42 for receiving the pivot brackets 34. Preferably these recesses 41 and 42, in addition to being provided in the side walls of the hollow body 11, are provided in the top and bottom walls of the hollow body 11 so that the strip 33 and the doors 37 may be vertically arranged rather than horizontally arranged. This is made possible by reason of these recesses and by reason of the fact that the hollow body 11 is square.

The doors operate to regulate the passage of air through the hollow block 11 and hence regulate the ventilation, and since the doors are made of glass or similar light transmitting material, light is permitted to pass through the ventilating block 10. 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 ventilting block harmonizes well with the glass block and, at the same time, provides for ventilation.

In Figs. 5 and 6, a ventilating block generally designated at 45 is of the type capable for use in gently curving walls. This ventilating block includes a hollow body 11 and a rear panel 13 which may be the same as those of Fig. 1. Here again a front panel 46 is utilized which has extended side edges 47 which permit the use of the ventilating block in gently curving walls. In other words, the width of the front of the ventilating block is greater than the width of the rear, thus adapting the block for gently curving walls. The space between the sides of the blocks are filled with cement. Otherwise, the front panel assembly 46 may be the same as the front panel 12 of Figs. 1 to 4. On the other hand, the front panel assembly 46 may be of a different form, which is illustrated in Figs. 5 and 6. Here the front panel assembly may be provided with vertically arranged louvers 48 rather than the horizontal ones of Figs. 1 to 4. If vertically arranged louvers are utilized, then it is desirable to provide a vertical strip 49 between the upper and lower sides of the shoulder 18 to prevent the direct passage of air or draft through the ventilating block 45.

Figures 7 and 8 illustrate a ventilating block capable for use in sharply curving walls. The ventilating block is generally designated at 55 and includes a hollow body 56 having diverging side walls 57 and an arcuately shaped internal shoulder 58. The outer surface of the hollow body 56 may be provided with corrugations 59. The front of the ventilating block 56 is provided with an arcuate front panel 60 carrying vertically arranged louvers 62. The front panel is held in place by screws 61. The rear of the hollow body 56 is provided with a rear panel 63 held in place by screws 64. A vertically arranged door 65 is pivoted by pivots 66 to the rear panel 63 and preferably the frame of the door 65 is provided with weatherstripping 67. Located between the louvers 62 and the internal shoulder 58 is an arcuate screen 68, and a vertical strip 69 may be extended between the upper and lower edges of the internal shoulder 58 to prevent the direct passage of air and draft through the ventilating block 55.

The same features and advantages occurring in the ventilating block of Figs. 1 to 4 are also afforded by the ventilating blocks of Figs. 5 to 8.

While for purposes of illustration, various forms of this invention have been disclosed, other forms thereof may become apparent to those skilled in the art upon reference to this disclosure and, therefore, this invention is to be limited only by the scope of the appended claims and prior art.

I claim for my invention:

1. A light transmitting and ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow body open at its front and rear and of a size of a light transmitting block and adapted to be incorporated as a block in the wall, a plurality of aligned and facing louver supports carried within and on opposite sides of the open front of the hollow body, a plurality of light transmitting louvers having their ends received in and removably carried by the louver supports, an internal shoulder within the hollow body intermediate the front and rear thereof for retaining the louvers in the louver supports, a screen within the hollow body engaging and secured against the internal shoulder, a light transmitting door, and aligned and facing pivot means at opposite sides of the open rear of the hollow body for pivotally supporting the door.

2. A light transmitting and ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow 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 open front panel secured to the front of the hollow body and provided with flanges entering the open front of the hollow body, said flanges having aligned and facing louver supports, a plurality of light transmitting louvers having their ends received in and carried by the louver supports of the flanges, an internal shoulder in the hollow body adjacent the flanges of the front panel, a screen secured between the shoulder and the flanges, an open rear panel secured to the rear of the hollow body, and a light transmitting door pivotally carried by the rear panel.

3. A light transmitting and ventilating wall block for walls formed of light transmitting blocks comprising a substantially rectangular hollow 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 open front panel secured to the front of the hollow body and provided with flanges entering the open front of the hollow body, said flanges having aligned and facing louver supports, a plurality of light transmitting louvers having their ends received in and carried by the louver supports of the flanges, an internal shoulder in the hollow body adjacent the flanges of the front panel, a screen secured between the shoulders and the flanges, an open rear panel secured to the rear of the hollow body, a pair of light transmitting doors pivotally carried by the rear panel, and a transverse strip on the rear panel for limiting the movement of the doors.

4. A light transmitting and ventilating wall block for gently curving walls formed of light transmitting blocks comprising a substantially rectangular hollow 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 open front panel secured to the front of the hollow body and extending beyond the sides of the hollow body and provided with flanges en-

tering the open front of the hollow body, said flanges having aligned and facing louver supports, a plurality of light transmitting louvers having their ends received in and carried by the louver supports of the flanges, an internal shoulder in the hollow body adjacent the flanges of the front panel, a screen secured between the shoulders and the flanges, an open rear panel secured to the rear of the hollow body and conforming to the dimensions of the hollow body, and a light transmitting door pivotally carried by the rear panel.

5. A light transmitting and ventilating wall block for a sharply curving wall formed of light transmitting blocks comprising, a hollow body open at its front and rear and having diverging sides, a wide front and a narrow rear and corresponding to the size of a light transmitting block and adapted to be incorporated as a block in the wall, a wide open front panel secured to the front of the hollow body and provided with flanges entering the open front of the hollow body, said flanges having aligned and facing louver supports, a plurality of light transmitting louvers having their ends received in and carried by the louver supports of the flanges, an internal shoulder in the hollow body adjacent the flanges of the front panel, a screen secured between the shoulders and the flanges, a narrow open rear panel secured to the rear of the hollow body, and a light transmitting door pivotally carried by the rear panel.

NATHAN COWAN.

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