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2,585,703

HOT-AIR CIRCULATING MOP BOARD

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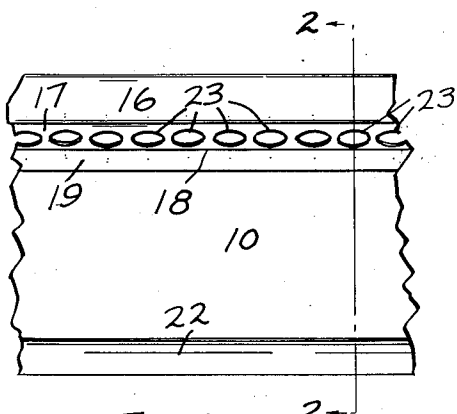


Fig. 1

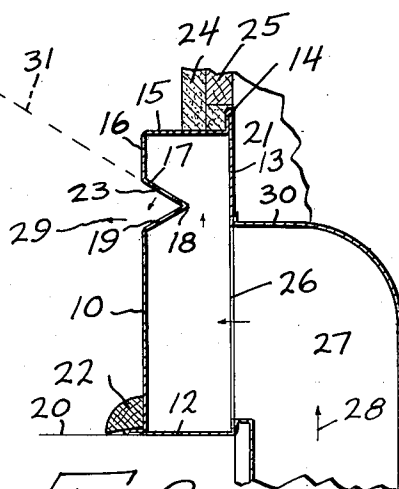


Fig. 2

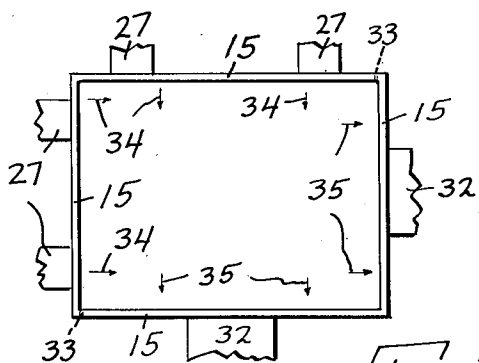


Fig. 3

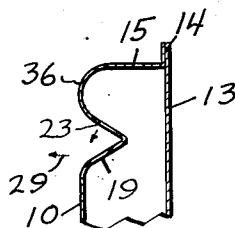


Fig. 4

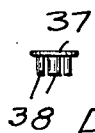


Fig. 5

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## UNITED STATES PATENT OFFICE

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## HOT-AIR CIRCULATING MOPBOARD

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2 Claims. (Cl. 98—40)

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My invention relates to a heating system.

An object of my invention is to provide means for heating a room or other structure through the agency of mop-boards.

A further object of my invention is to provide a hot air circulating system in conjunction with such mop-boards and wherein the heat emitting openings are not visible at normal heights.

A further object of my invention is to provide a simplified mop-board structure having the above characteristics which can be manufactured at a very reasonable cost, and which can be conveniently installed.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a forward elevation of the mop-board of my invention,

Figure 2 is a sectional view of Figure 1 taken substantially along the line 2—2 thereof,

Figure 3 is a schematic plan view of a heating circuit employing my type of mop-board,

Figure 4 is a modification, and

Figure 5 is an elevation of one of the plugs which can be used in my arrangement.

My invention contemplates the provision of a simple hollow mop-board structure, with said mop-board structure including a plurality of openings whereby warm air forced into said mop-board will be emitted into a room or other structure and whereby said openings can also serve to function as a cold air return.

I have used the character 10 to designate the forward wall of the mop-board, this wall 10 being preferably made of thin sheet metal, the wall 10 extending into the flange portion 11 which joins the bottom wall 12, the wall 12 continuing into the further vertical wall 13 which is parallel to the wall 10. The wall 13 continues into the flange 14 which joins with the forward portions 15 and 16, the portion 16 being substantially in vertical alignment with the portion 10. The wall portion 16 continues into the downwardly inclined angular portion 17, the portion 17 joining at 18 with the further angular portion 19, the portion 19 merging with the portion 10.

By virtue of this structure it will be noted that the flange 11 can be secured to the floor 20, and the flange 14 to the vertical risers 21. Also, the usual half-rounds which form the lower trim

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and which are indicated by the character 22 can be secured against the flange 11. The portion 17 includes a series of equally spaced circular openings 23, these openings thereby being directed downwardly, it being understood however that other angles of inclination can be employed. The character 24 designates the plaster covering and the character 25 the lath.

The wall 13 includes a rectangular opening 26 which communicates to a feeder pipe 27, the pipe 27 passing to any type of forced warm air unit.

It will now be noted that the mop-board is hollow throughout, and that any warm air forced upwardly in the direction of the arrow 28 will pass into this mop-board, and thence downwardly through the openings 23 which warm air impinges on the surface 19 and then is deflected laterally in the direction of the arrow 29. The top wall 30 of the feeder pipe is positioned slightly beneath the openings 23 so that the pressure can be equalized within the mop-board before the air is discharged too rapidly, thereby providing a uniform flow.

The mop-board by virtue of this construction, provides all of the functions of a mopboard and yet provides an efficient warm air circulating system, and it will be further noted that the openings will not normally be at all visible to the eye thereby insuring an attractive appearance to the mop-board, the dotted line 31 illustrating the angle of visibility. The openings will not be visible above this line usually, and the mop-board will perform its heating function with the openings being practically invisible.

The mop-boards can be made of any desired length consistent with the size of the room or other structure, and any number of feeder pipes can be employed. Figure 3 illustrates an installation whereby the mop-board is shown about a room with the character 32 indicating cold air pipes, and with the mop-boards being blocked at 33. In this form of structure the warm air will pass in the direction of the arrows 34 and the cold air will return in the direction of the arrows 35, the arrangement thereby providing the completed circulation.

It should be understood that this type of mop-board can be built in a variety of shapes, Figure 4 illustrating a modification wherein the mop-board includes the curved portion 36 with the further characters indicating similar portions as indicated in the other figures, this type naturally embodying the same principles.

In some cases it may be desirable to block

off some of the heat emitting openings, such as behind certain articles of furniture which it is desired to protect from the heat, in which case I provide the circular plug members 37 which extends into the spring urged prongs 38, the prongs permitting the plugs to be inserted and retained in any number of openings to thereby block off openings wherever desired. The mop-boards can be painted or colored any desired color to present an attractive appearance.

It will now be noted that my type of mop-board structure provides a uniform flow of warm air, which flow is well balanced in that the flow is directed inwardly at all points about the room, and it will be also noted that a variety of other advantages are readily apparent.

Some changes may be made in the construction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

1. A hot air circulating device comprising a hollow mop board having a forward wall, a rear wall parallel to and spaced from said forward wall, and upper and lower end walls, said forward wall having a downwardly and inwardly inclined portion having a plurality of laterally spaced openings, a further outwardly inclined portion extending downwardly and angularly from said portion, means for admitting warm air into said mop board, the inclination of said openings providing means for directing warm air downwardly from said openings to impinge against said further inclined portion, and where-

by said warm air will then be directed laterally.

2. A hot air circulating device comprising a hollow mop board having a forward wall, a rear wall parallel to and spaced from said forward wall, and upper and lower end walls, said forward wall having a downwardly and inwardly inclined portion having a plurality of laterally spaced openings, a further outwardly inclined portion extending downwardly and angularly from said portion, means for admitting warm air into said mop board, the inclination of said openings providing means for directing warm air downwardly from said openings to impinge against said further inclined portion, and where- by said warm air will then be directed laterally, said warm air admitting means including a plurality of feeder pipes, the tops of said feeder pipes being positioned beneath said openings to provide uniform pressures to be built up in said mop board before injection of said warm air.

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