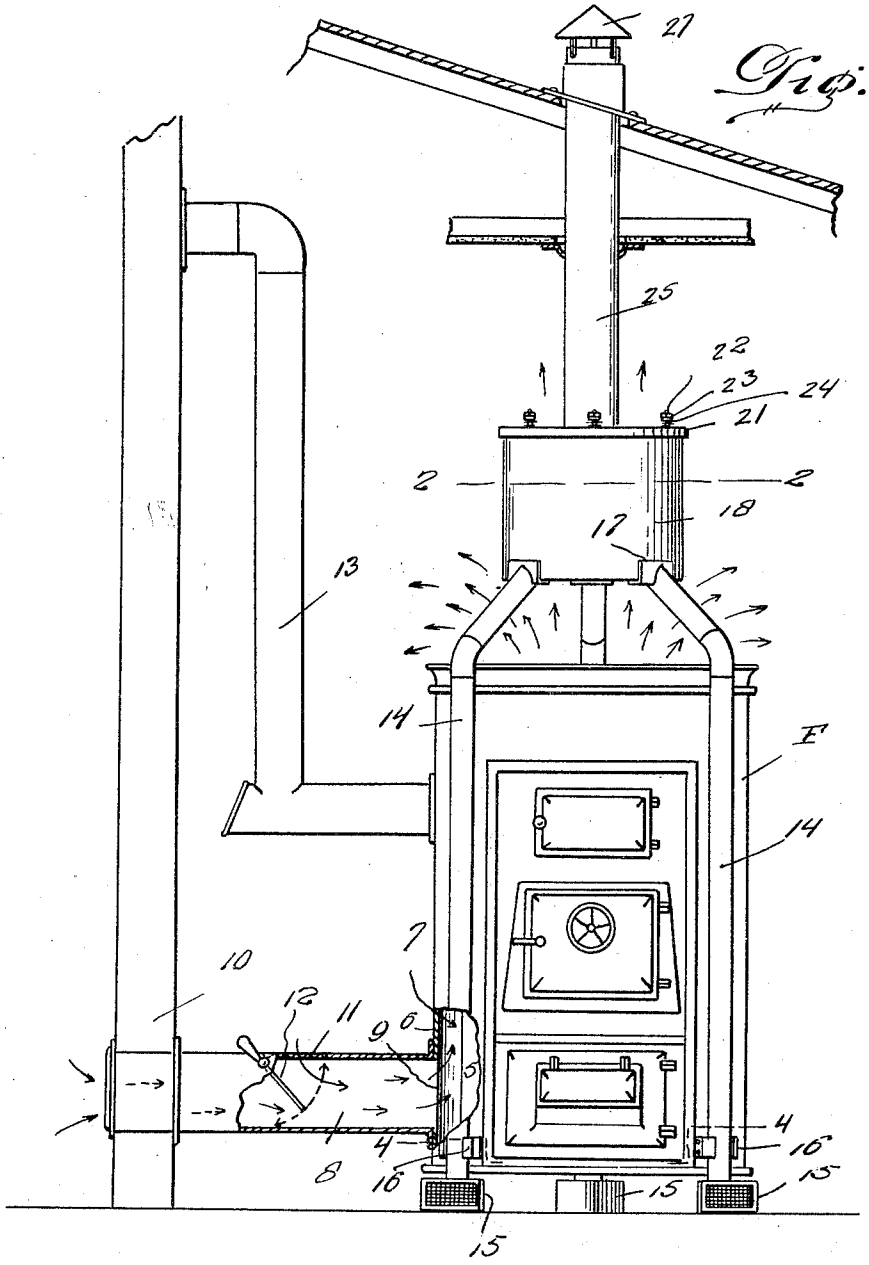
May 21, 1929. P. W. McCLERNON 1,713,768

HEATING AND VENTILATING SYSTEM

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Fig. 1.



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Fig. 2.

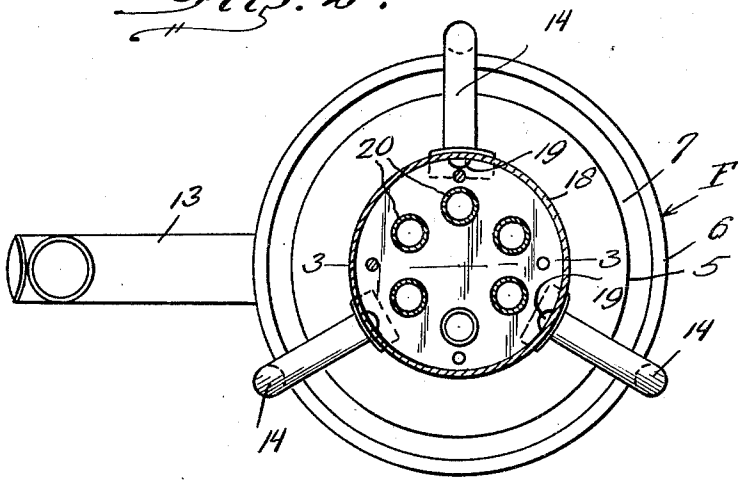


Fig. 3.

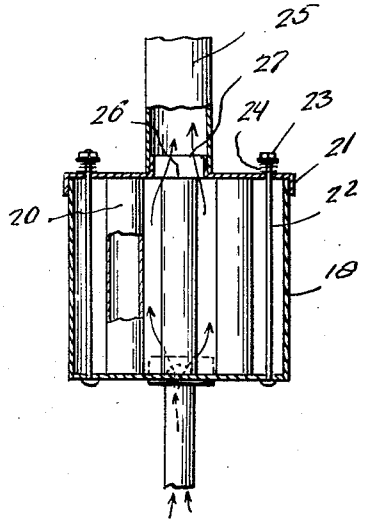
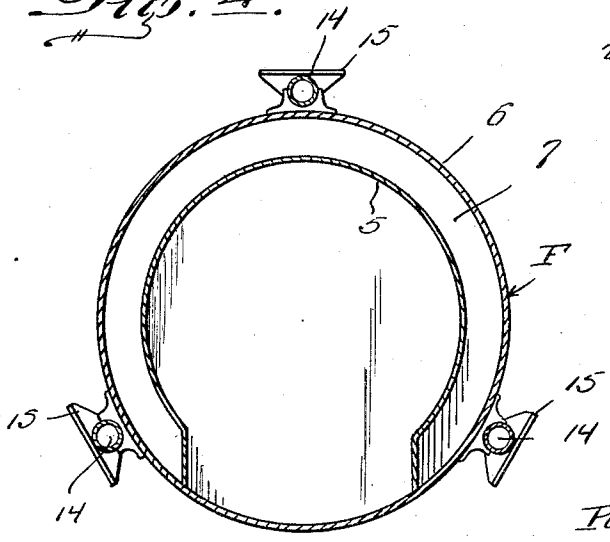


Fig. 4.



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UNITED STATES PATENT OFFICE.

PAUL W. McCLERNON, OF SPRINGFIELD, MISSOURI.

HEATING AND VENTILATING SYSTEM.

Application filed March 26, 1927. Serial No. 178,585.

The present invention relates to a heating and ventilating system for rooms and has for its principal object to provide means in combination with a heating apparatus whereby foul air may be drawn out of a room adjacent the floor below the breathing level.

Another very important object of the invention lies in the provision of a system of this nature which is comparatively simple in its construction, may be manufactured at a low cost, is thoroughly reliable and efficient in use and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view, as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:—

Figure 1 is an elevation of an apparatus embodying the features of my invention showing a portion in section,

Figure 2 is a horizontal section taken substantially on the line 2—2 of Figure 1,

Figure 3 is a vertical section through a portion of the device taken substantially on the line 3—3 of Figure 2,

Figure 4 is a horizontal section taken substantially on the line 4—4 of Figure 1 looking downwardly.

Referring to the drawing in detail it will be seen that the letter F denotes a furnace or a suitable heating device which in the present instance has an inner wall 5 and an outer wall 6 to provide air space 7. An air-intake pipe 8 at one end registers with an opening 9 in the wall 6 communicating with the air chamber 7 and at its other end leads through a wall 10 or the like to the exterior of the house or the like in which the system is installed. A screened opening 11 is provided in the pipe 8 within the room. A hinged valve 12 is mounted in the pipe and may be swung to close the opening 11 or may be swung to close the pipe off from the exterior or may be held in an intermediate portion so that air will be sucked down from the room and from the exterior of the house. The numeral 13 denotes a conventional flue pipe for the furnace. The air chamber 7 opens out through the top of the furnace or other heating device F so that the air is heated in the chamber and flows out from the top, being sucked in from the room or from the exterior of the building or from both as may be desired. A plurality of pipes 14 rise alongside of the furnace F from screened intake members 15. The pipes are held in place by brackets 16 on the furnace or in any other suitable manner. The pipes 14 converge above the furnace inwardly and upwardly towards each other merging into bracket plates 17 on which rests a drum casing 18 and the pipes 14 communicate with the drum casing 18 through edge openings in the bottom thereof indicated by numerals 19. A plurality of tubes 20 extend through the bottom and top of the drum casing 18. The top of the drum casing is denoted specifically by numeral 21 and is removable and is held in place by bolts 22 which have nuts 23 engaged on their upper ends for tightening springs 24 against the top to hold said top in place. A conduit 25 rises from the center of the top registering with an opening 26 that is formed with an annular flange 27 rising upwardly therefrom and about which the lower end of the pipe 25 fits tightly. This pipe 25 extends up through an opening in the roof and is provided with a ventilator cap of suitable formation as at 27. The hot air rising from the air chamber 7 passes drum casing 18 and through the tubes 20 thereof, thereby heating the air in the drum casing 18 so that it will rise upwardly and escape through the pipe 25 and cause the foul air to be drawn up through the pipe 14 and through the screened intakes 15 from the room adjacent the floor below the level of the breathing space.

From the above detailed description it will be seen that I have devised a system whereby a room such as a pool room may be efficiently heated and ventilated and the fresh air from the exterior may be regulated so as to be sufficient for requirements. The system requires no particular attention outside of the usual attention given to a heating device and yet will prove highly efficient and reliable.

It is thought that the construction, utility, and advantages of this system will now be clearly understood by those skilled in this art without a more detailed description thereof. The present embodiment of the invention has been disclosed in detail merely by way of example since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description. It will be apparent that changes in the details of construc-

tion, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:—

In combination a heating device, a plurality of vertical pipes adapted for disposition around the heating device, screened intake members at the bottom ends of the pipes, means for attaching the pipes to the heating device, the upper ends of the pipes converging upwardly toward each other and merging into bracket plates, a drum casing resting on the bracket plates and communicating with the pipes, and tubes extending vertically through the casing, said drum having an opening in the top thereof.

In testimony whereof I affix my signature.

PAUL W. McCLERNON.