A. B. MULLETT.

Warming and Ventilating Apparatus.

No. 158,965. Patented Jan. 19, 1875.

FIG. 2.

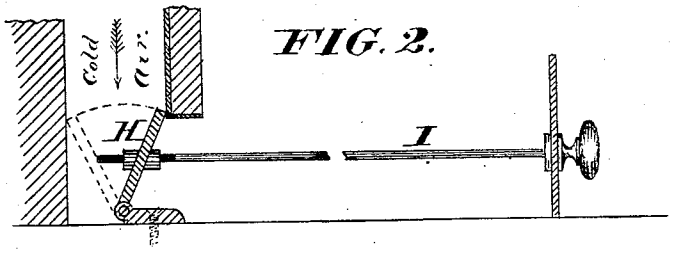
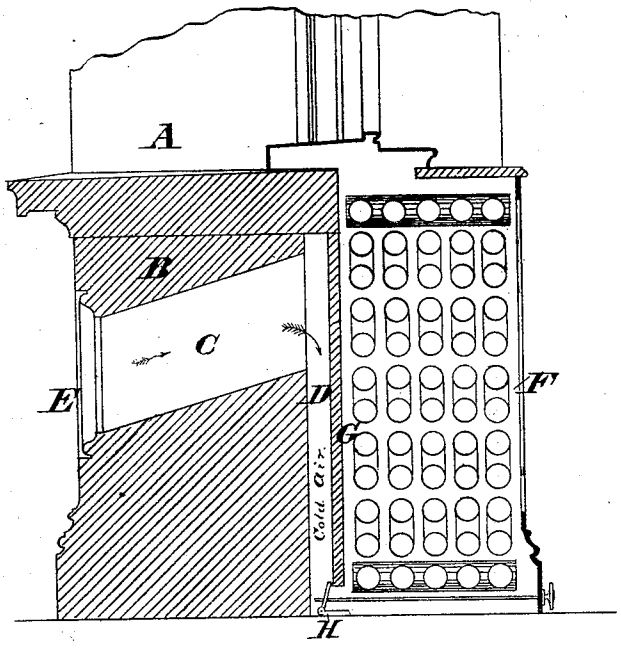


FIG. 1.



SCALES, 1 IN & 3 IN = TO ONE FOOT

Witnesses:
Octavius Knight
Henry Tanner.

Inventor:
A. B. Mullett

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UNITED STATES PATENT OFFICE.

ALFRED B. MULLETT, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN WARMING AND VENTILATING APPARATUS.

Specification forming part of Letters Patent No. **158,965**, dated January 19, 1875; application filed December 16, 1874.

To all whom it may concern:

Be it known that I, ALFRED B. MULLETT, of Washington, in the District of Columbia, have invented an Improvement in Warming and Ventilating Apparatus, of which the following is a specification:

My mode of warming and ventilating buildings consists in arranging coils or other suitable radiators within or in front of the window-recess, with an induction passage or passages below the window-sill or in the sides of the window-jambs, through which a supply of fresh air can be obtained, which is conducted to the bottom of the radiators, and made to pass through or over them, and thereby become thoroughly heated before entering the room.

In order to insure a full supply of air, and cause it to descend to the lower part of the radiator, and prevent its being checked in its descent by the effect of the heat radiating from the heaters, I interpose between the induction-passage and the radiators a partition of non-conducting material.

In the accompanying drawings, Figure 1 is a vertical section of the base of a window with my invention applied, the inlet for air in this instance being placed in the ornamental panel below the window-sill. Fig. 2 is a vertical section on a larger scale of a portion of the air-passage, with the valve and valve-rod for controlling the induction of air.

A represents a portion of the window-jambs, and B the base thereof, or external wall of the building beneath the window; C, the inlet through the wall, and D the air-duct formed between the wall B and the coils by the non-conducting partition G. C, the inlet for the air, is preferably placed at a sufficient height from the ground to receive pure air and avoid the danger of the entrance of foreign matter. This air-passage should be protected on the outside by a grating, E, and it preferably ascends slightly toward the inside to prevent the entrance of water. The passage or pipe D descends from the inner end of the passage C in order to conduct the air to the lower part of the radiator F, and cause it to receive the full effect of the heat as it rises, by contact with the surfaces of said radiators.

In the present illustration I have shown the radiator consisting of a coil of pipes, but a radiator of any preferred construction may be used.

It will be apparent that if the air, in first entering through the passage C, were subjected to the effect of the heat from the radiator F, its rarefaction would interfere with its descent through the vertical passage D to such an extent as to impair the freedom of the ingress of air under some conditions of the atmosphere, or without appliances for creating a strong outward current from some other portion of the apartment to be warmed and ventilated. To overcome this difficulty, while still providing for the conduction of air to the lowest part of the radiator, or that it may receive the full effect of the heat, I interpose between the radiator F and the descending passage D a partition, G, of non-conducting material, so that the air may be delivered at the lowest part of the ventilator in a cold state and without expansion in volume.

H represents a valve, operated by rod I, or by a sliding rod or other means, if preferred, for the purpose of controlling the induction of air, or shutting it off entirely, if desired.

It is essential, in order to receive the full benefit of the radiating-surface in the coils or radiators, that the air be introduced at the bottom of the radiator; otherwise an unnecessary amount of radiating-surface would be required.

I claim as new and of my invention—

1. The combination, with the heat-radiator F, of the air-passages C D, formed, as herein described, within the permanent base B of the window, for the purpose set forth.

2. The combination of the non-conducting partition G with the heat-radiator F and the air-passages C D, formed within the permanent base B of the window, as explained.

A. B. MULLETT.

Witnesses:

OCTAVIUS KNIGHT,

WALTER ALLEN.