

W. R. FOWLER.

EVAPORATOR FOR HOT-AIR REGISTERS.

No. 181,930.

Patented Sept. 5, 1876.

Fig. 1.

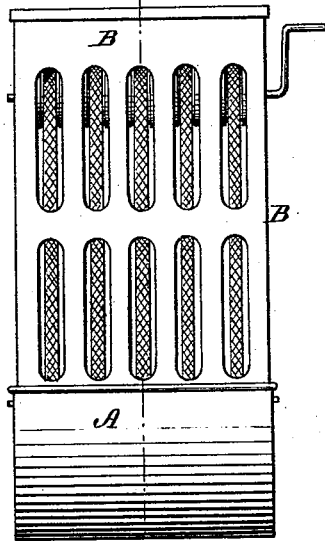


Fig. 2.

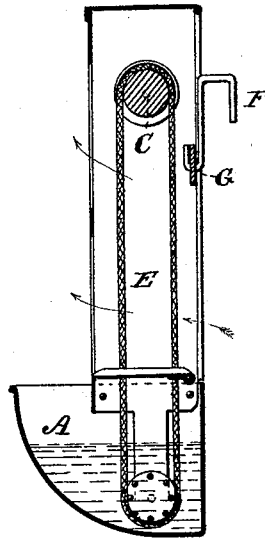


Fig. 4.

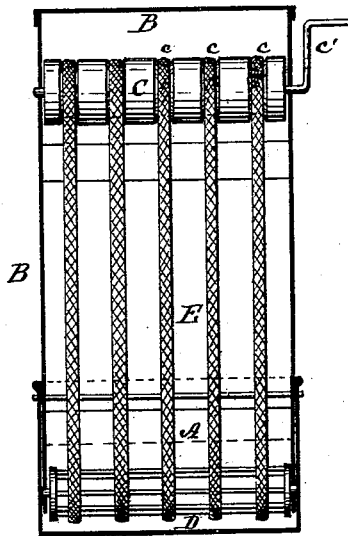
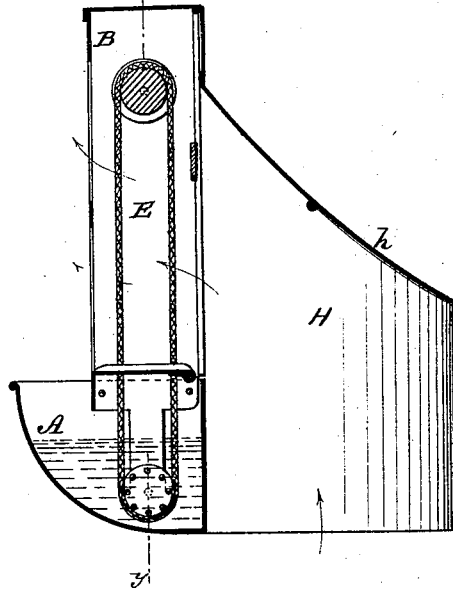


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM R. FOWLER, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN EVAPORATORS FOR HOT-AIR REGISTERS.

Specification forming part of Letters Patent No. 181,930, dated September 5, 1876; application filed March 8, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM R. FOWLER, of Baltimore city, in the State of Maryland, have invented a new and Improved Evaporator for Hot-Air Registers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which the figures of drawing are elevations, of which the first is a front view, the second and third sections through line *x x* of the first, and the fourth a section through line *y y* of the third.

The invention relates to means by which the hot air thrown by a furnace or stove into an apartment may be mixed with aqueous vapor, and thereby rendered innocuous to the lungs as well as agreeable for inspiration.

It consists in arranging before a hot-air register long strips of absorbents saturated with water, and adapted to supply themselves with the same as fast as it is vaporized and removed by the heated air; also, in the particular means by which the invention is made applicable to a register in a wall or fire-place, in a stove-pipe, or in the floor.

A represents a water-receptacle, to and above which is attached the frame B, closed at top, slotted at bottom as well as front, and open at the rear. In the upper portion of frame B is journaled a roll, C, having the ring-grooves *c* and crank-arm *c'*, while in the lower part, extending nearly to bottom, is journaled a roll, D, formed of longitudinal wires, secured in a disk or head at each end. On the latter, and passing into grooves of the former that serve to space them, are a number of endless absorbers, E, of any porous or fibrous material. F F are hooks arranged in a cross-strap, G, and adapted to hold the evaporator before the register of a hot-air furnace or stove, in side wall or fire-place.

By turning the crank a few times the endless absorbers E become saturated with moist-

ure, which will be vaporized and carried into the room by the hot air passing from register through the evaporator. Their capillary attraction will cause the absorbers to supply the place of the moisture evaporated by continually drawing upon the water in receptacle.

H represents an attachment, open at the bottom, so as to inclose a floor-register, provided with a lid, *h*, to allow access to, and manipulation of, the register, and a rear opening to correspond with that of the evaporator above described. This makes my evaporator equally adapted to either form or location of register, or to that of a stove-pipe, so that the dry hot air which is poured into a room may be moistened, and thus rendered more healthy and suitable for respiration.

Having thus described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. The combination, with water-receptacle A, of a frame, B, closed at top, slotted at bottom as well as front, and open at the rear, the said frame being provided with strips of absorbent, substantially as and for the purpose described.

2. The combination, with water-receptacle A, of opposite rolls C D, provided with endless strips E, that may be moved on the rolls, as set forth.

3. The combination, with absorbents in the form of endless strips, and the bottom roll, of a top roll that is grooved circumferentially and at intervals, to keep the strips apart, in the manner specified.

4. The combination, with frame B, constructed and provided with absorbents, as described, of the attachment H, as and for the purpose specified.

WILLIAM R. FOWLER.

Witnesses:

CHARLES W. HENISLER,  
G. E. SANGSTON.