

L. E. SMITH.
HOT-AIR REGISTER.

No. 191,080.

Patented May 22, 1877.

Fig. 1.

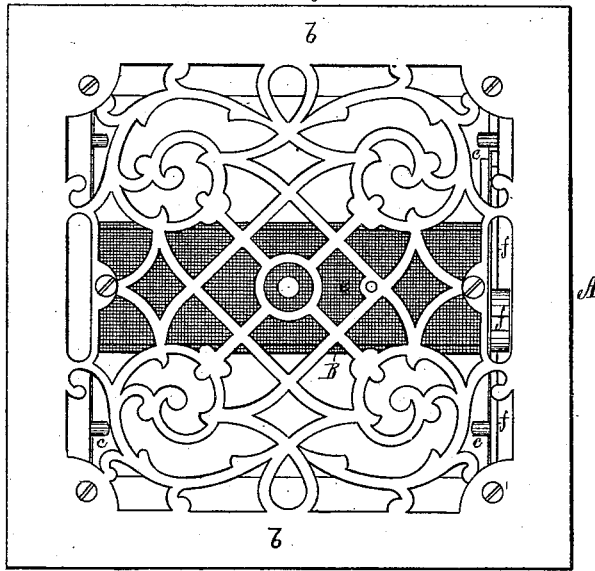


Fig. 2.

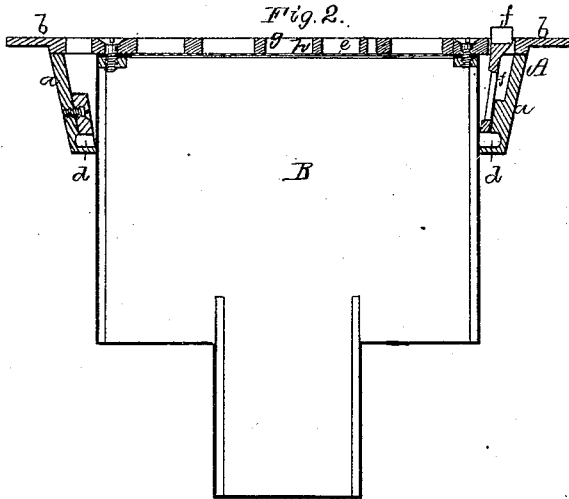
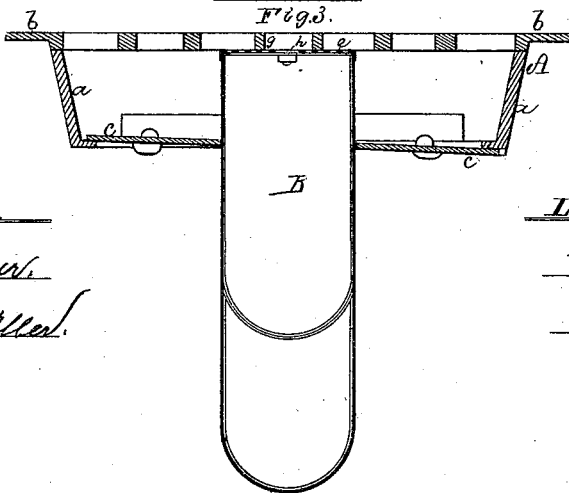


Fig. 3.



Witnesses.

S. W. Piper.

L. W. Miller.

Inventor.

Leverett E. Smith

by his attorney.

R. H. Eddy.

UNITED STATES PATENT OFFICE,

LEVERETT E. SMITH, OF ROCKPORT, MASSACHUSETTS.

IMPROVEMENT IN HOT-AIR REGISTERS.

Specification forming part of Letters Patent No. **191,080**, dated May 22, 1877; application filed April 24, 1877.

To all whom it may concern:

Be it known that I, LEVERETT E. SMITH, of Rockport, of the county of Essex and State of Massachusetts, have made a new and useful invention having reference to Hot-Air Registers; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Figs. 2 and 3 are transverse sections, of it, such sections being taken in planes at right angles to each other.

My invention consists in the combination of a hot-air register with an evaporator affixed to it, and extended up between its valves; also, the combination of a hot-air register with an evaporator fixed to it, and extended up between its valves and aside of their operative slide or connection-piece; also, in a hot-air register provided with two or more valves and intermediate bearings for another, and with an evaporator fixed to it and extended up between such valves, all being substantially as set forth.

In the drawings, A represents the hot-air register, consisting of the open frame *a* and cap-plate *b*, two valves, *c c*, and their operative connection-slide *f*, all being made and applied in the usual way. Besides the bearings for the pivots of such valves, the register may have intermediate bearings *d d*, to receive the pivots of another such valve in case it should ever be desirable to employ such in the place of the evaporator B, which is a narrow and deep pan, open at top, except in being there covered by a woven-wire screen, *e*. This evaporator is arranged within the frame of the register, and extended up between the two valves, and fastened to the cap-plate, one

end of the evaporator being alongside of the connection-slide *f*.

At the center of the cap-plate and the woven-wire screen are holes *g h*, to receive the spout of a tunnel, for supplying the evaporator with water, as occasion may require.

I contemplate constructing the cap-plate with a recess or hole, to receive the evaporator and enable it to be put in place or removed from the register without the necessity of detaching the cap-plate from the frame.

By my invention the evaporator becomes directly combined with the register, and is so arranged that vapor, in passing out of the evaporator, cannot flow against and be condensed on the valves.

The arrangement also admits of the evaporator being readily charged or supplied with water without any necessity of removing the register from its supply-pipe, or of removing the cap-plate of the register from its frame.

I claim, therefore, as my invention—

1. The combination of the hot-air register with an evaporator fixed to it, and extended up within it and between its valves, all substantially as set forth.

2. The combination of a hot-air register with an evaporator fixed to it, and extended up between its valves and aside of their operative slide, all being essentially as shown and described.

3. A hot-air register provided with valves and intermediate bearings for another valve, and with an evaporator extended up within the said register and between its valves, all substantially as explained and represented.

LEVERETT E. SMITH.

Witnesses:

R. H. EDDY,
J. R. SNOW.