

(No Model.)

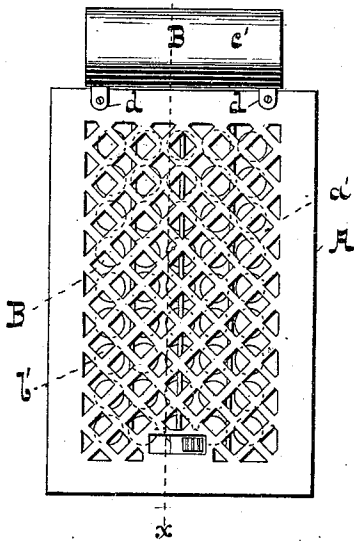
C. T. DAVIS.

EVAPORATOR FOR HOT AIR REGISTERS.

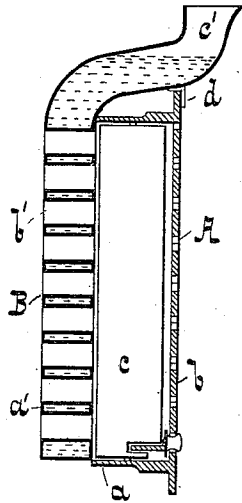
No. 309,771.

Patented Dec. 23, 1884.

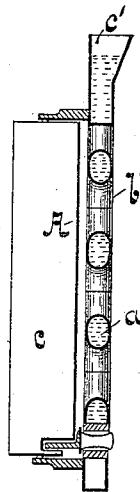
- FIG. I -



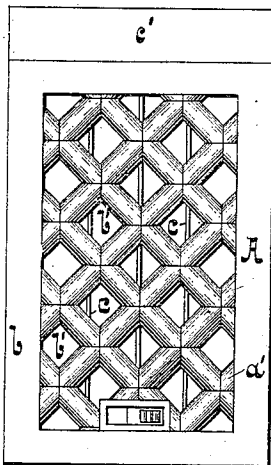
- FIG. II -



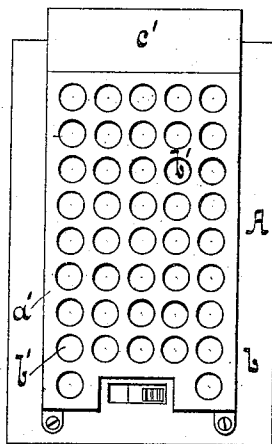
- FIG. III -



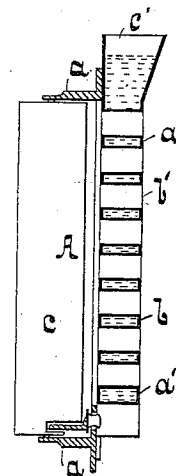
- FIG. IV -



- FIG. V -



- FIG. VI -



- WITNESSES -

Paul Fisher

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- INVENTOR -

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Atty -

UNITED STATES PATENT OFFICE.

CHARLES TIMOTHY DAVIS, OF BALTIMORE, MARYLAND, ASSIGNOR TO
GEORGE V. KEEN, JAMES S. HAGERTY, AND JAMES R. HAGERTY, ALL
OF SAME PLACE.

EVAPORATOR FOR HOT-AIR REGISTERS.

SPECIFICATION forming part of Letters Patent No. 309,771, dated December 23, 1884.

Application filed January 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. DAVIS, of the city of Baltimore and State of Maryland, have invented certain Improvements in Hot-Air Registers and Water-Evaporators, of which the following is a specification.

In the description of my invention reference is had to the accompanying drawings, forming a part hereof, and in which—

Figure I is an exterior front view of the invention. Fig. II is a vertical section of the same taken on the dotted line *x x*, Fig. I. Figs. III and IV are respectively a vertical section and an exterior front view of the invention, illustrating a modified construction. Figs. V and VI are similar views of the invention, illustrating further modifications.

Referring to Figs. I and II, A is a hot-air register consisting of the frame *a*, perforated plate *b*, and the vertical pivoted damper-slats *c*; B, a water-evaporator applied to the back of the register. The said water-evaporator consists of an open water-holding vessel, *a'*, having tubes *b'*, extending through it for the passage of hot air. An extension, *c'*, of the vessel *a'*, which answers the purpose of a filling-nozzle and means of exit for vapor, is brought forward over the register so as to clear the wall in which the register is inserted, and it is provided with lugs *d*, by means of which it is fastened to the front plate of the register. Hot air from the heater, in passing through the tubes *b'* of the evaporator, heats the water, and the vapor escapes to the apartment.

In Figs. III and IV the evaporator is formed as a part of the register, the spaces between the hollow bars corresponding in office with the pipes *b'* shown in Figs. I and II.

In Figs. V and VI the evaporator, which corresponds in all essential particulars with the one shown in Figs. I and II, is applied to the front of an ordinary register.

I am aware that in Letters Patent No. 10,240, granted on the 15th day of November, 1853, to Towers, for hot-air register, is shown and described a coiled water-pipe having a filling-nozzle, which coil is arranged around the opening of the register. The object of this open pipe is to admit of the escape of vapor from the water to the room; but it is manifest that very little vapor would be generated, as the bulk of the hot air passing through the register could not come in contact with the pipe, but only that which is on the outside of the column and is the coolest. In my invention a net-work of water-holding pipes extends over the entire area of the hot-air opening, and the water therein is effectually heated and water evaporated in appreciable quantities.

I disclaim the invention described by me in an application for Letters Patent for an improvement in water-evaporators, filed January 23, 1884, under No. 118,406.

I claim as my invention—

A hot-air register and water-evaporator, which consists of an open frame adapted to be set in a wall having pivoted slats and means to operate them, combined with an open-top water-holding vessel with a series of hot-air tubes, as described, which is placed over and covers the entire area of the hot-air opening in the said frame, substantially as specified.

CHARLES TIMOTHY DAVIS.

Witnesses:

CHAS. B. CASSADY,
JOHN WILLIAMS.