

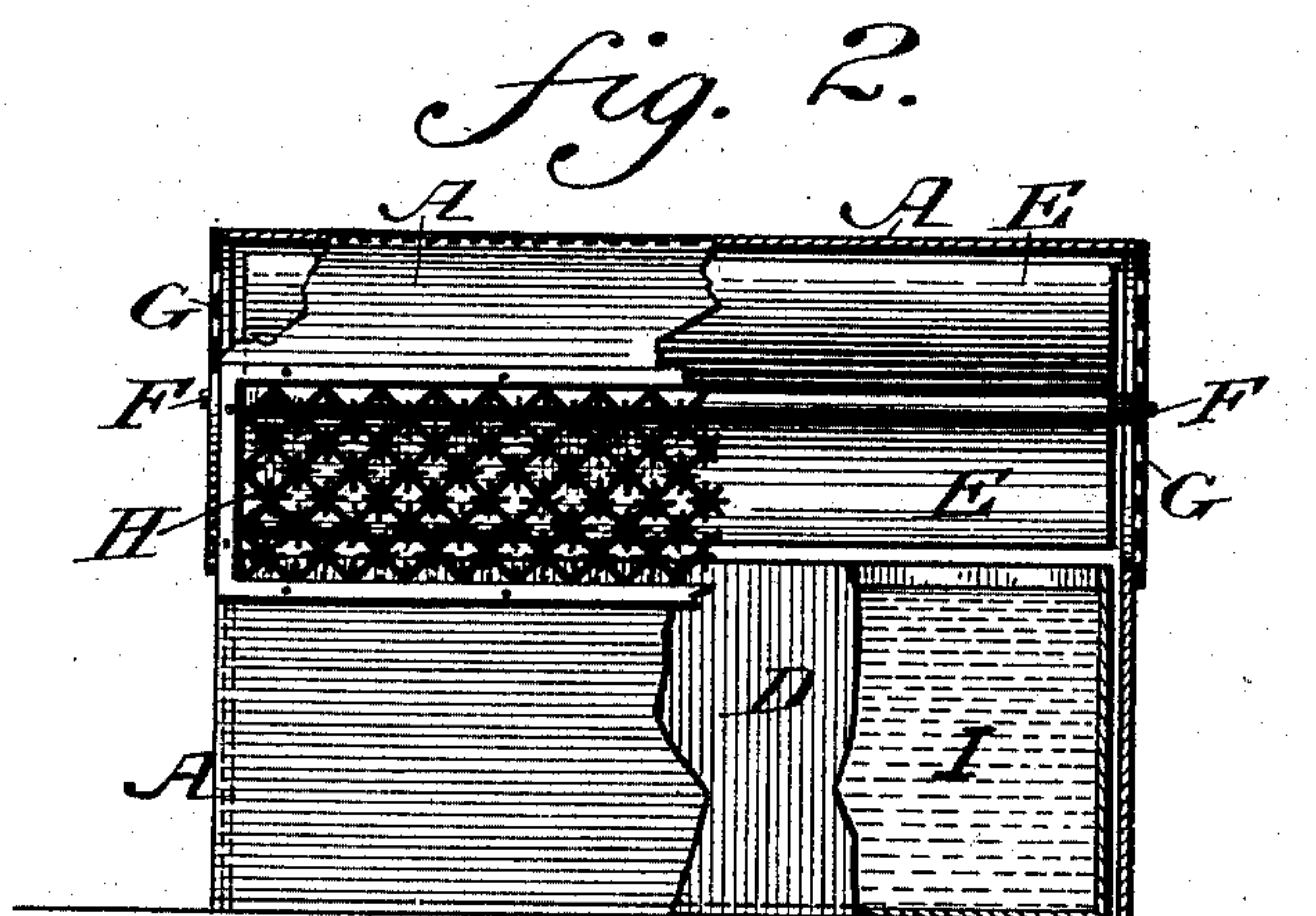
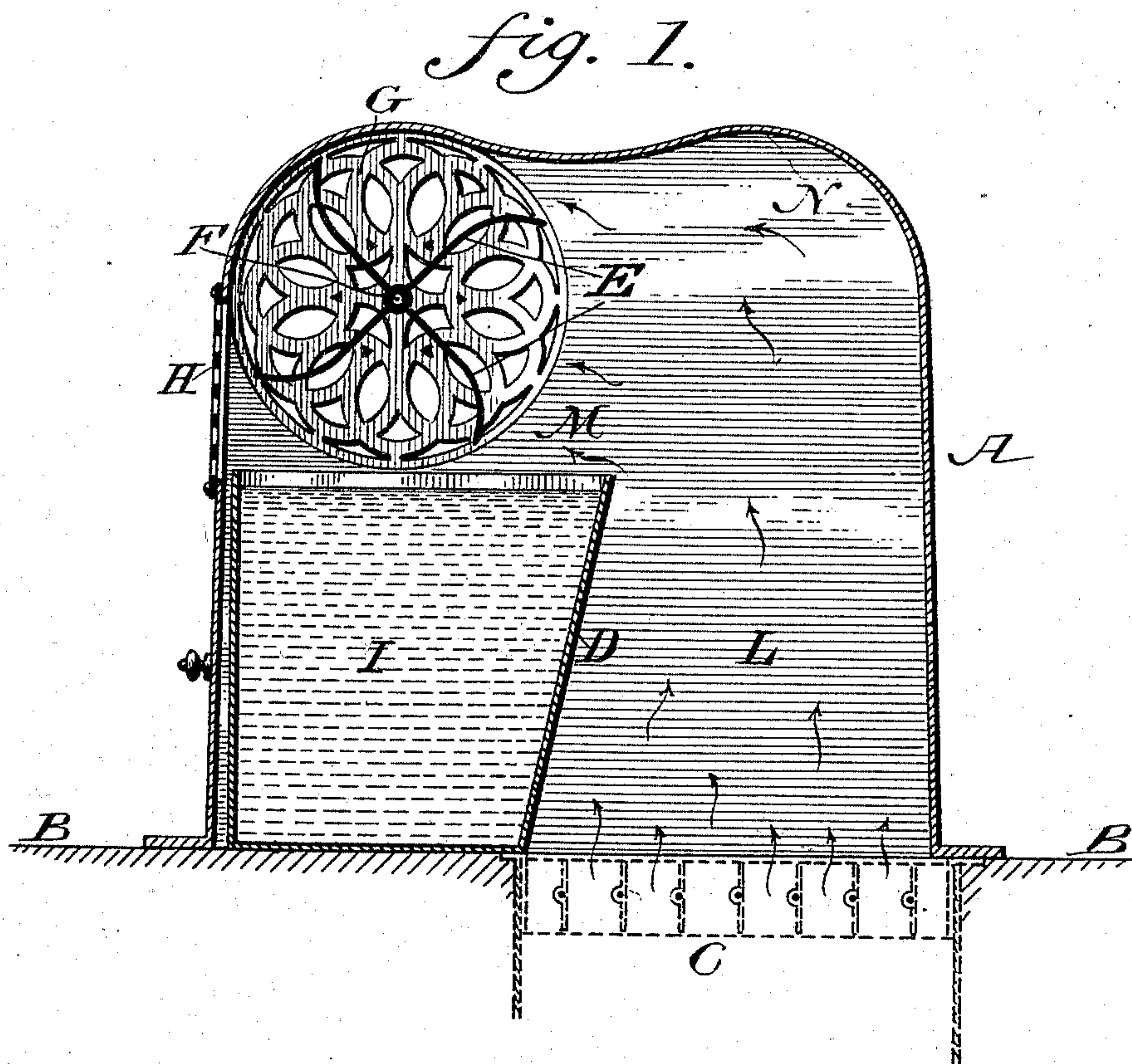
(No Model.)

H. ILIOWIZI.

AIR MOISTENING AND PURIFYING ATTACHMENT FOR REGISTERS.

No. 526,653.

Patented Sept. 25, 1894.



WITNESSES:

L. Dowdle,  
P. H. Hagel.

INVENTOR

Henry Iliowizi  
BY *John A. Dierckheim*

ATTORNEY.



# UNITED STATES PATENT OFFICE.

HENRY ILIOWIZI, OF PHILADELPHIA, PENNSYLVANIA.

AIR MOISTENING AND PURIFYING ATTACHMENT FOR REGISTERS.

SPECIFICATION forming part of Letters Patent No. 526,653, dated September 25, 1894.

Application filed March 29, 1894. Serial No. 505,526. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY ILIOWIZI, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Air Moistening and Purifying Attachments for Hot-Air Registers, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved attachment for moistening and purifying hot air, especially that which is conducted into an apartment through a register placed in the floor, as will be hereinafter set forth.

Figure 1 represents a vertical sectional view of an attachment embodying my invention. Fig. 2 represents a partly front elevation and partly vertical section of another view of the same on a reduced scale.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings: A designates a casing having an open bottom, and a closed back and top, said bottom being adapted to rest on the floor B, and to inclose a hot air register C, of usual construction, placed in said floor. At one side of the hot air register is the open topped receptacle D, which is adapted to be filled with water. Directly over said receptacle is the fan E, whose shaft F is journaled in the apertured sides G of the casing A.

H designates a grating which extends over the front of the casing A, through which the heated air is discharged, while some of the same is discharged through the sides G, G. The casing A is preferably made of sheet metal, so that it can be readily removed and placed in position, or it may be made in sections as desired.

The attachment is adapted to a variety of uses, as the receptacle D may hold other liquids besides water, such as a deodorant, perfumery, &c.

It will be noted that the back or rear side of the receptacle D adjacent to the hot air register, and the opposite wall of the casing form a vertical passage L, which is in communication with the register in the floor. At the top of said passage is a laterally-deflected passage, the outer end of which forms the fan chamber M. The form of this passage

causes the hot air rising from the register to be conducted upwardly against the casing, thence laterally and injected forcibly upon the blades of the fan, imparting a rapid motion to the same, which causes the hot air to be effectively driven upon the surface of the water. It will be noticed that I incline the side of the receptacle D, adjacent to the register, thus narrowing the upper portion of the passage between the same and the side of the casing, so that it has to a certain extent the function of a contracted nozzle, concentrating the current of hot air and driving it forcibly against the upper rounded portion N of the casing, whence it is deflected laterally to the fan and upon the liquid in the receptacle.

The operation will now be apparent. The heated air passing through the hot air register, rises in the casing A, as indicated by the arrows, and impinges upon the blades of the fan, causing the same to revolve, so that the heated air is carried around by the fan and passed over the surface of the liquid in the receptacle D, whereby any dust, dirt or other impurities are abstracted, and a vapor is generated which is forced out into the room which is to be heated.

In the operation of my device, all the air in a room is gradually moistened, since as the hotter air is continually rising, the colder air must be descending to take its place, a portion of which is drawn in through the sides G, G, of the casing.

The apertured sides G, G, and the front piece H may be secured to the casing A, in any desired manner.

I am aware that it has been heretofore proposed to inclose a water receptacle and a fan within a suitable casing, having an open back and closed bottom, and to attach the same to a register so that the hot air will be directed for the most part horizontally against the fan, and to such general construction I herein make no claim, my aim in the present instance being to introduce the hot air into the bottom of the casing into a passage which conducts said air first vertically, and thence laterally against the fan, one of the walls of said passage being formed by the back of the aforesaid casing, while another wall is formed by a side of said water recep-



tacle which is extended upwardly and is inclined so as to narrow the upper portion of said vertical passage, thereby forming a nozzle as it were, the function of which has already been stated, and furthermore by reason of the inclination of said side, a greater water surface is exposed, so that practically, every portion of the current of hot air will be deflected into contact therewith before being discharged into the apartment and it will also be evident that by providing openings in the sides as well as in the front of the casing, the egress of said hot air will be greatly facilitated.

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

An air moistening apparatus consisting of a casing having a closed top and back and an open bottom, a fluid receptacle inclosed therein, and having a side inclined upwardly toward the back of said casing so as to form in conjunction therewith, a contracted passage, a fan chamber above said fluid receptacle, a fan therein, and a lateral passage leading from said contracted passage to said fan chamber, the upper portion of said casing having discharge openings adjacent to said fan, the above parts being combined substantially as described.

HENRY ILIOWIZI.

Witnesses:

JOHN A. WIEDERSHEIM,  
A. P. JENNINGS.