C. R. MERRILL.

AIR MOISTENING APPARATUS.

No. 188,063. Patented March 6, 1877.

Fig. 1.

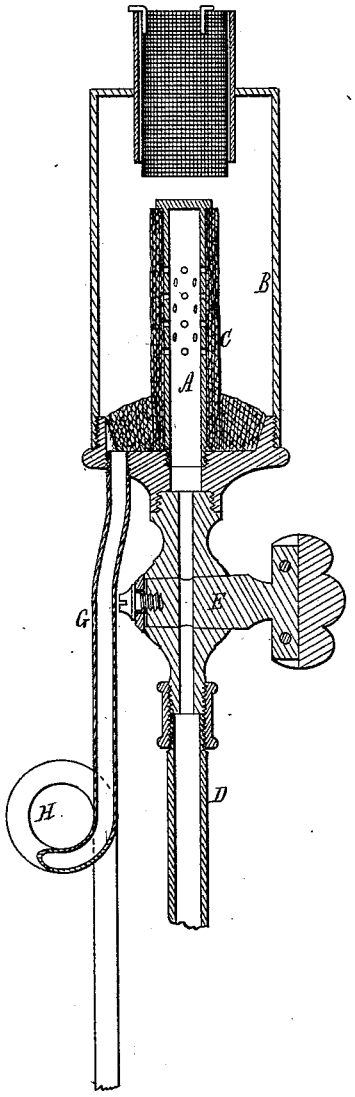
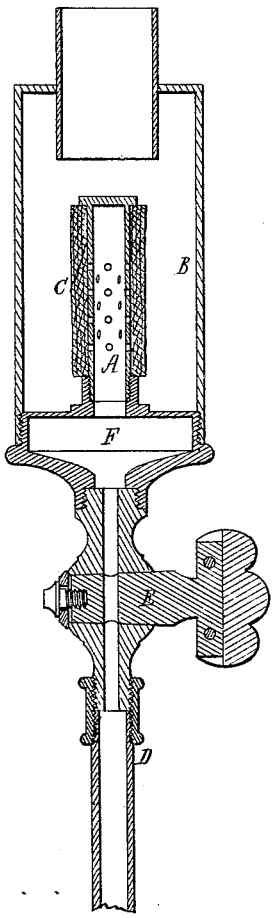


Fig. 2.



Witnesses.

S. W. Pierce

L. F. Müller

Chester R. Merrill

by his attorney

R. H. Eddy

UNITED STATES PATENT OFFICE.

CHESTER R. MERRILL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND BENJAMIN S. CALEF, OF SAME PLACE.

IMPROVEMENT IN AIR-MOISTENING APPARATUS.

Specification forming part of Letters Patent No. **188,063**, dated March 6, 1877; application filed February 6, 1877.

To all whom it may concern:

Be it known that I, CHESTER R. MERRILL, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Apparatus for Moistening or Odorizing the Air of an Apartment; 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 vertical section of the said apparatus under one construction of it. Fig. 2 is a similar section under a somewhat varied construction.

It, as shown, is designed to be fixed to a radiator, such as generally used for heating an apartment by steam let into such radiator.

In the drawings, A is a foraminous vessel, cylindrical in shape, and arranged concentrically within a case, B, open at its upper end. The vessel A is encompassed by a cloth jacket, C. From the bottom of the case B a pipe, D, provided with a stop-cock, E, is extended, such pipe opening through such bottom, and directly into the foraminous vessel A, or into a chamber, F, arranged below such, and in other respects as shown in Fig. 2. The pipe D is to lead from a steam radiator or generator, and is to supply the disseminator or foraminous vessel A with steam, which, flowing therefrom through the jacket, will be received within and discharged from the case B. The jacket is to prevent noise, which, without it, would follow from the passage of the steam through the openings of the disseminator. It also answers one or more other useful purposes.

Furthermore, the case B and the disseminator and jacket are provided with a means of getting rid of the condensed steam or the water that gathered in and discharged from the jacket would be likely in time to more or less fill up the case B. One means of accomplishing this result is the chamber F below the disseminator, and extending across the case B, in manner as shown. The top of this chamber by being heated by the steam before it may pass into the disseminator, will reconvert into steam any surplus water that may flow from the jacket. Such steam will escape into the atmosphere through the top of the case B.

Another means of accomplishing such result is shown in Fig. 1, it being a tube, G, extending down from the bottom of the case B, and bent in some part of it in a helix or coil, H, which, when partly filled with water, serves as a trap to prevent air from passing up the pipe into the vessel B, and also answers one or more other useful purposes. The water of condensation escaping from the jacket will be discharged by the educt G.

When the above-described apparatus is attached to a steam-radiator, steam from the latter may be discharged noiselessly into the room or the atmosphere therein, in order to moisten it to the extent necessary for health or the comfort of persons therein, or for any other purpose.

I sometimes place within the case B a material for odorizing the steam or vapor. Such material may be in a bag or suitable receptacle, properly arranged in such case.

I claim—

The air-moistener, substantially as described, consisting of the foraminous disseminator A, the surrounding jacket C, the inclosing open case B, and the induct D, all arranged and applied as set forth, and provided with means for getting rid of the water of condensation escaping from the jacket, as explained.

CHESTER R. MERRILL.

Witnesses:
R. H. EDDY,
J. R. SNOW.