

W. R. LAFOURCADE.
EVAPORATORS FOR HOT-AIR REGISTERS.

No. 195,617.

Patented Sept. 25, 1877.

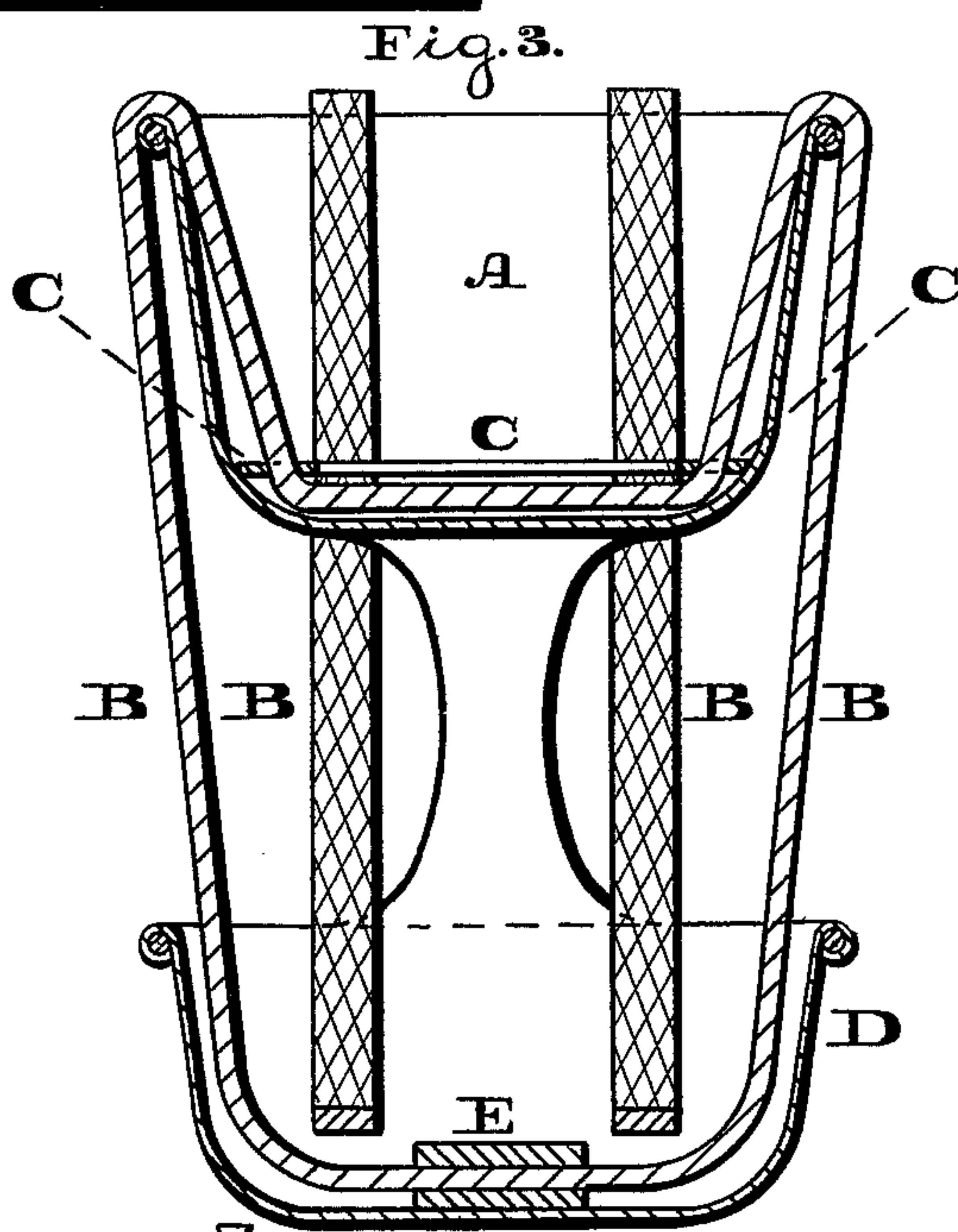
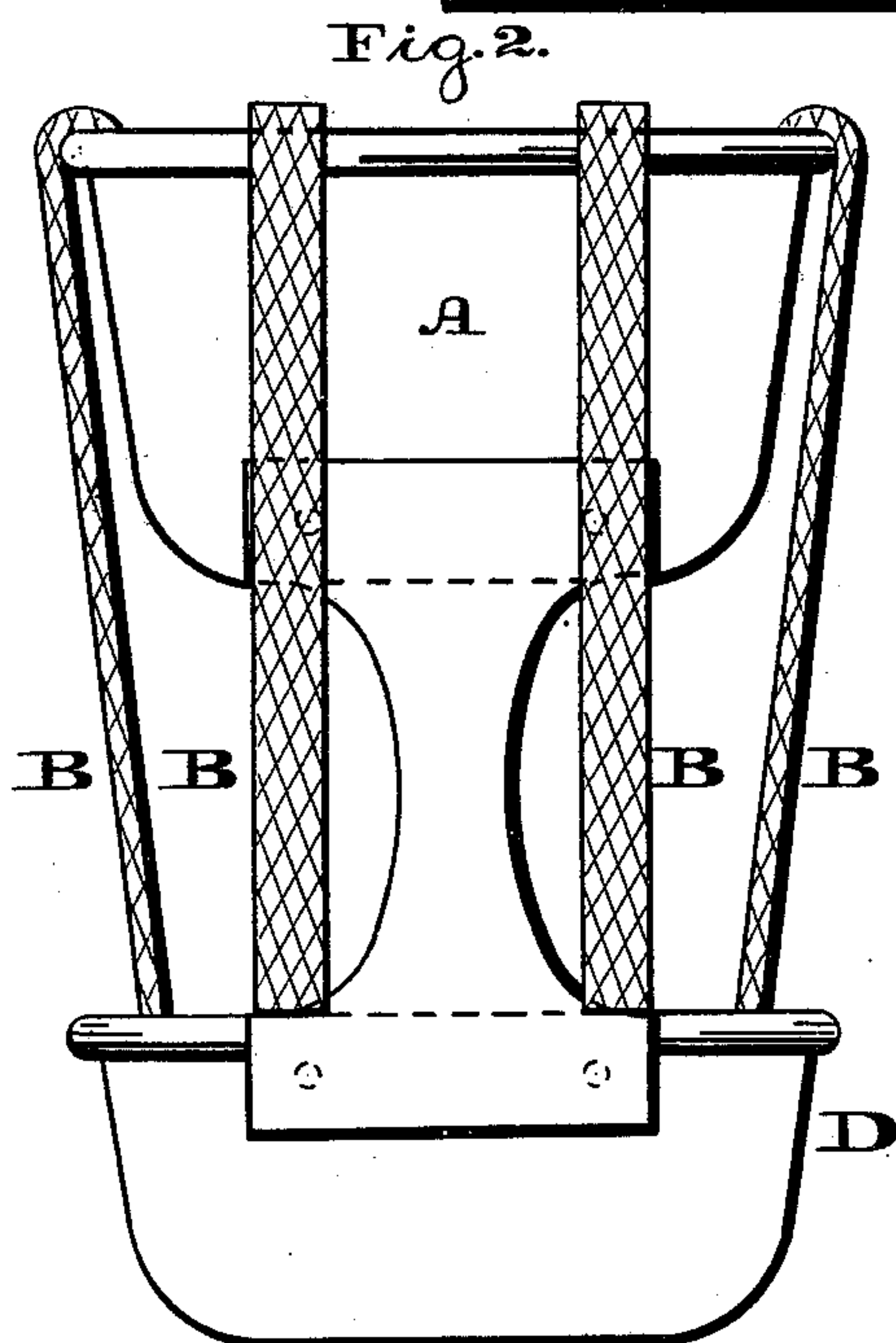
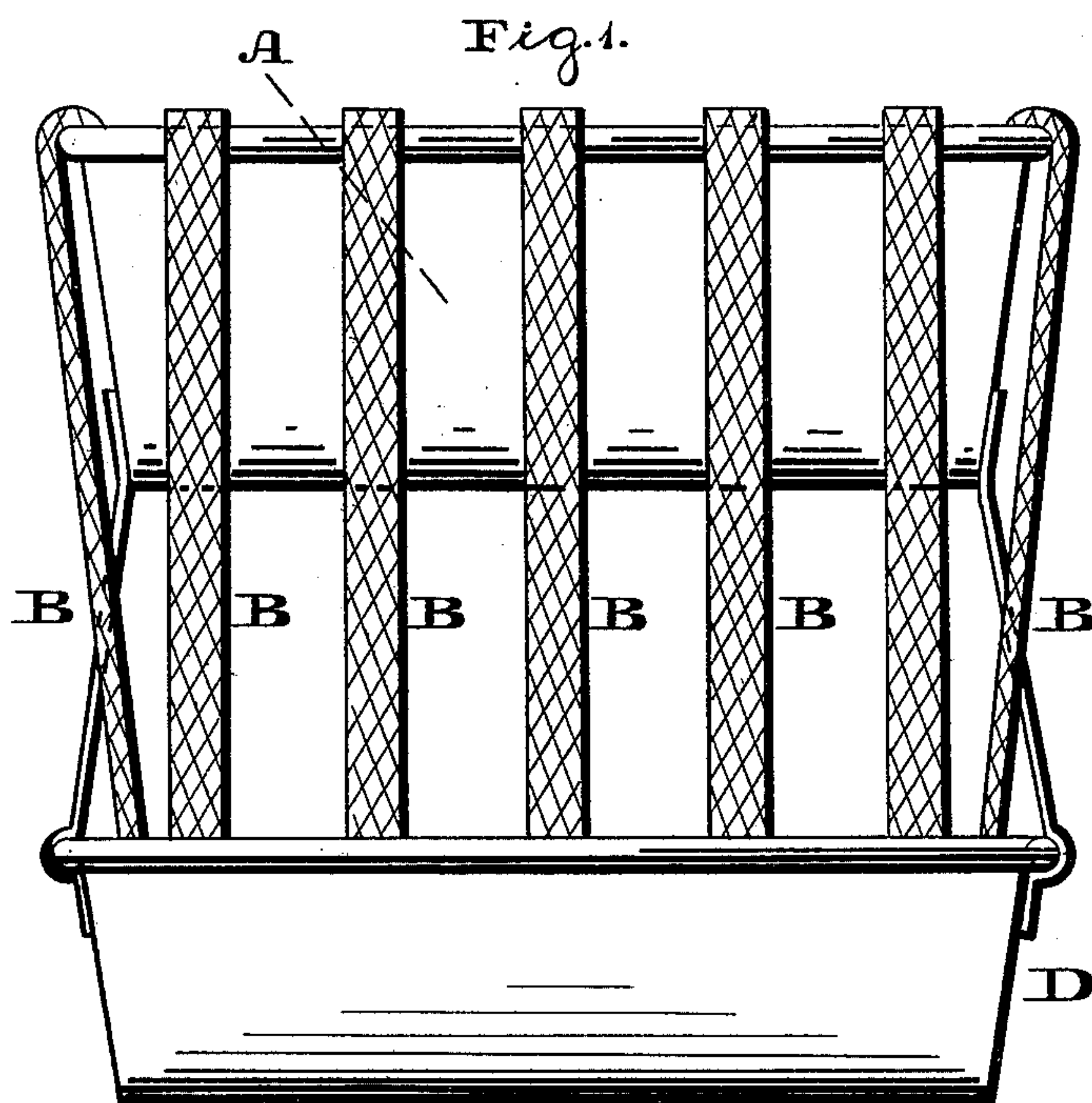


Fig. 4.

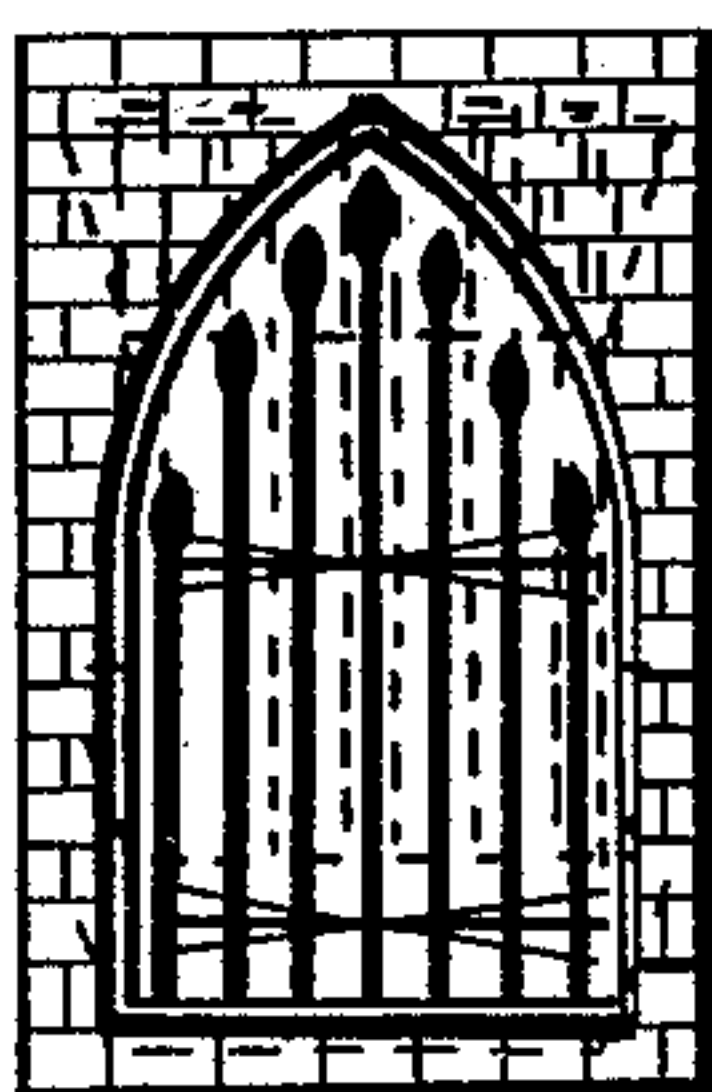
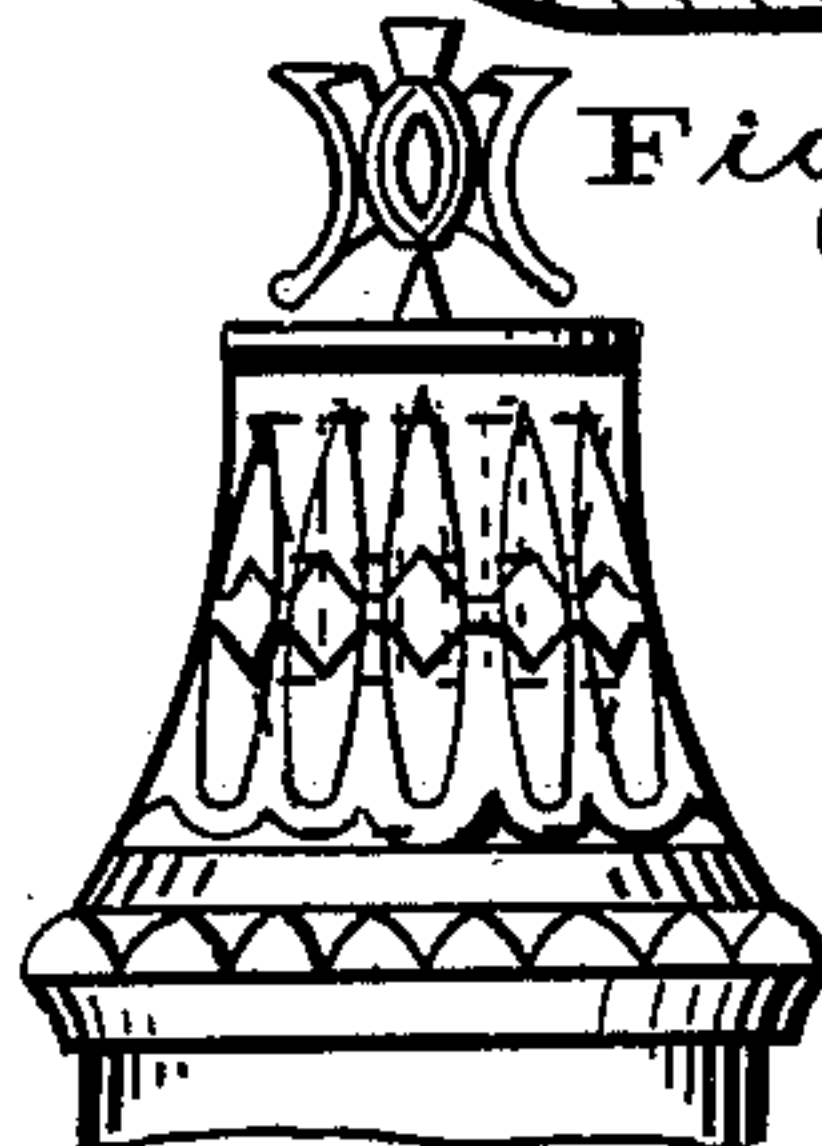


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM R. LAFOURCADE, OF BEVERLY, NEW JERSEY.

IMPROVEMENT IN EVAPORATORS FOR HOT-AIR REGISTERS.

Specification forming part of Letters Patent No. 195,617, dated September 25, 1877; application filed May 14, 1877.

To all whom it may concern:

Be it known that I, WILLIAM R. LAFOURCADE, of Beverly, in the county of Burlington, in the State of New Jersey, have invented a new and useful Improvement in Evaporators for Hot-Air Registers, Heating Apparatus, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front view of the evaporator embodying my invention. Fig. 2 is a side view thereof. Fig. 3 is a central vertical section thereof. Fig. 4 is a front view of a register, and Fig. 5 is a front view of a heating apparatus, to both of which my invention has been applied.

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

My invention consists of an elevated water-receptacle into which dips absorbent material, which is also suspended from said receptacle, so that the water will be directed by capillary attraction to the descending portion of the absorbent material, so that capillary attraction and weight of the water will cause the material to be continually supplied with water, whereby, when the receptacle is properly located adjacent to a register or hot-air chamber of a heating apparatus, the heat will be caused to pass partly or entirely through a moistened surface, and enter the apartment in a moistened, modified, and improved condition, as is evident.

The invention also consists of a base-pan for collecting the drippings of the absorbent material.

Referring to the drawings, A represents an elevated water-receptacle, which is properly constructed in order to be placed adjacent to a hot-air register, or in the hot-air chamber of a heating apparatus. B represents strips or pieces of wick or other absorbent material, a portion of the length of which is placed in the receptacle A, and another portion thereof is suspended over the sides of said receptacle, so that the space below the receptacle will be partly or entirely surrounded by absorbent material.

The receptacle A will be supplied with a proper height of water, which will be taken

up by the material B by capillary attraction, and directed to the highest part of said material, after which it will flow down said material, and thus continuously moisten the suspended or depending portion of the material.

It will be seen the heat from the register or heating apparatus will be directed through the absorbent material, which presents a moistened surface thereto, so that the heat will be moistened or improved in its passage through said surface.

Owing to the descending stream of water in the absorbent material due to capillarity and weight of the water, the supply of water to said material will be greater than the quantity which is evaporated by the heat. Consequently the moist condition of the heated air will be insured.

Owing to the weight of the material B, the portion of the latter in the receptacle is liable to be drawn to the top thereof, and thus be free of the water therein. To prevent this I apply to said portion a hold or catch, C, which keeps the same in the bottom of the receptacle A, whereby it is constantly immersed in the water of said receptacle, so that the absorbent will always be supplied with water.

D represents a pan, which is located below the receptacle A, and connected to the framework or supports of said receptacle at the base thereof.

The lower lengths of the absorbent material are introduced into the pan D, so that the drippings or excess of water of said material will be directed or fall into the pan, whereby there will be no slopping outside of the apparatus.

In order to retain the absorbent in the base-pan, I apply thereto a hold or catch, E, which keeps the lower portion of the absorbent from rising or slipping from position.

The absorbent is readily removable from the receptacle A and pan D for purposes of replenishing, cleansing, &c.

The number of strips or pieces of absorbent material may be increased or decreased as required or desired.

The water in the receptacle may be perfumed, or have medicinal or disinfectant substances incorporated with it, whereby the va-

por directed into the apartment may be of a perfumed, medicinal, or disinfectant nature.

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

1. The elevated water-receptacle A and drip-pan D, in combination with the absorbent pieces B, substantially as and for the purpose set forth.

2. The elevated water-receptacle A, drip-pan D, and absorbent pieces B, in combination with the retainer C, substantially as and for the purpose set forth.

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Witnesses:

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