J. L. HUTCHINSON.

Evaporater for Hot Air Pipes.

No. 52,572. Patented Feb. 13, 1866.

FIG. 2.

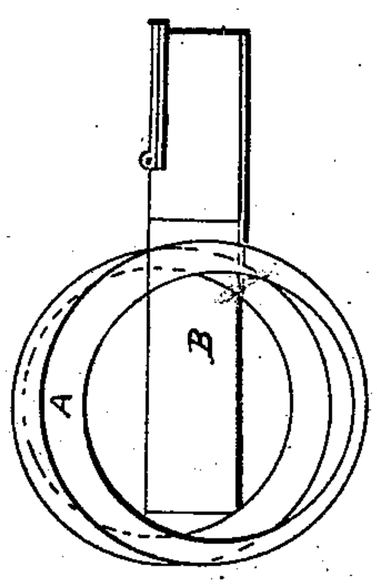


FIG. 4. thro lines 33

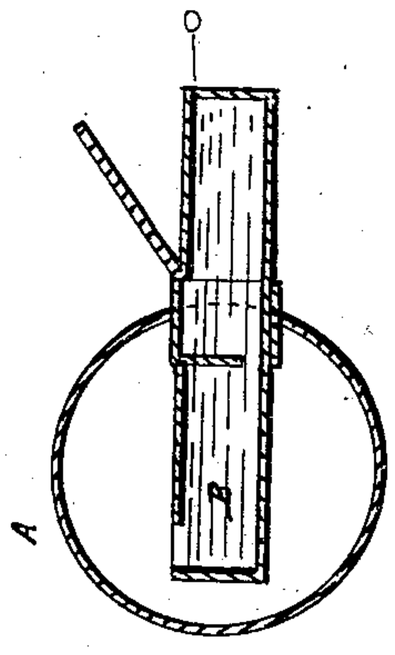


FIG. 1.

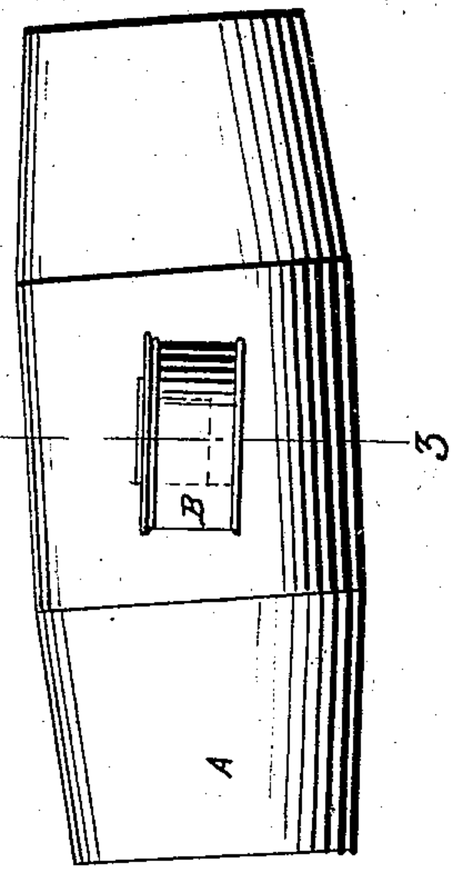
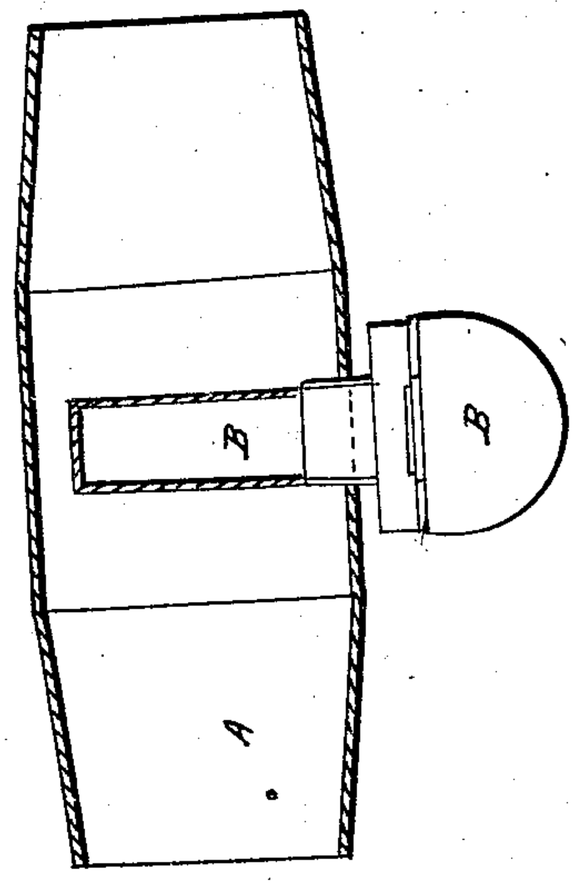


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JESSE L. HUTCHINSON, OF BALTIMORE, MARYLAND.

EVAPORATOR FOR HOT-AIR PIPES.

Specification forming part of Letters Patent No. **52,572**, dated February 13, 1866.

To all whom it may concern:

Be it known that I, JESSE L. HUTCHINSON, of the city and county of Baltimore, and State of Maryland, have made new and useful improvements in evaporators to be connected with hot-air pipes at points between the hot-air furnace and registers in chambers, for the purpose of supplying moisture to the heated air by the evaporation of water placed in receptacles within the pipes, to be supplied from cisterns or reservoirs situated without said pipes; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it is allied to construct and use the same, reference being had to the accompanying drawings, in which my improvements are shown as applied to a portion of a hot-air pipe.

Figure 1 is a side view of hot-air pipe A, and front view of evaporator-cistern B. Fig. 2 is a front view of hot-air pipe A and a side view of evaporating-cistern B. Fig. 3 is a longitudinal section of hot-air pipe A and top view of evaporating-cistern B. Fig. 4 is a section of the above through the line *y z*, Fig. 1.

The invention consists in enlarging the diameter of the pipe at the point where the evaporator is to be situated, thereby presenting the same area as the connections therewith, so that the introduction of the evaporator within the body of the pipe does not obstruct the equal flow of hot air, and so arranging the evaporator that water can be introduced in it from the outside either by the automatic action of ball and cock attached to the cistern on the outside or by hand.

In the drawings, A represents a section of a hot-air pipe, with the portion of its diameter enlarged to contain the evaporator B, which may be of metal, in the form of a rectangular cistern of a size suitable to the dimensions of hot-air pipes. This passes through the side of pipe, as indicated in Figs. 2, 3, and 4, and is connected with a cistern of any required dimensions situated at its outer extremities, and to which water is supplied either by the automatic action of a hollow ball or cock or otherwise by hand. There is a slide covering the rectangular part of the evaporator, which, by a rod, can be moved to regulate the surface of the water over which the hot-air passes in its passage from the furnace through the pipes to the chambers or rooms where it is required.

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

The combination, with an appropriate enlargement of the hot-air pipe, of a water-reservoir so placed within as to expose a surface for evaporation, and capable of being supplied with water from the outside by automatic device or otherwise, as may be desirable.

JESSE L. HUTCHINSON.

Witnesses:

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J. D. GOODALL.