

G. H. Thatcher,

Fountain.

N^o 8232

Patented July 22, 1851.

Fig. 2.

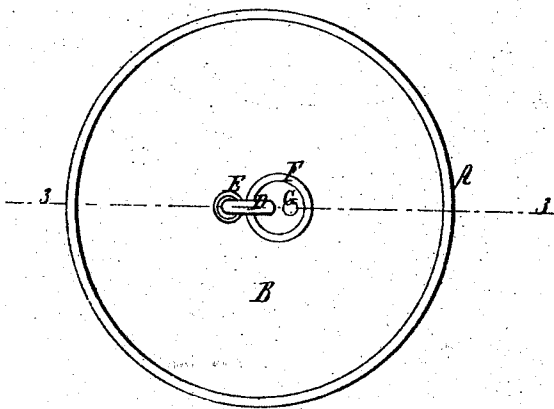


Fig. 4.

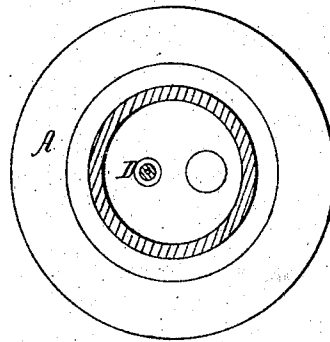


Fig. 1.

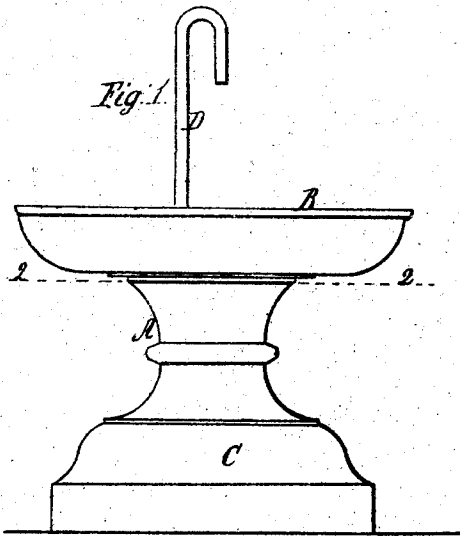
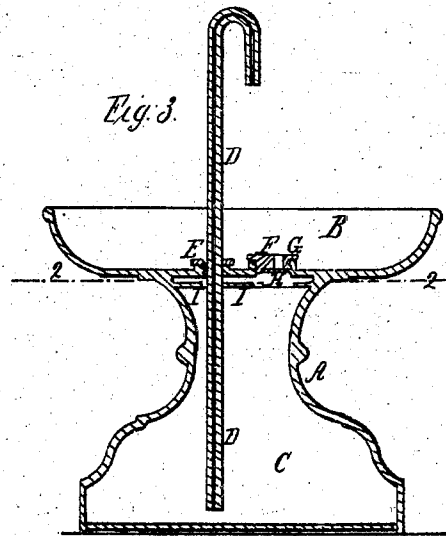


Fig. 3.



UNITED STATES PATENT OFFICE.

GEO. H. THATCHER, OF ALBANY, NEW YORK.

COMBINED FOUNTAIN AND EVAPORATOR.

Specification of Letters Patent No. 8,232, dated July 22, 1851.

To all whom it may concern:

Be it known that I, GEORGE H. THATCHER, of the city of Albany, in the county of Albany and State of New York, have invented
5 a certain new and useful Improvement, being a Combined Fountain and Evaporator for Stoves, which I denominate the "Self-Supplying Evaporator;" and I do hereby declare the following to be a full and clear
10 description of the construction and operation thereof, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 represents an elevation of the
15 fountain evaporator. Fig. 2 is a plan or top view of ditto. Fig. 3 is a vertical section on the line 3 3 of Fig. 2. Fig. 4 is a horizontal section on the line 2, 2, of Fig. 1.

The same letters of reference indicate the
20 same parts on the several figures.

The nature of my invention consists in constructing a vase or other like article to be used in connection with a stove, with two
apartments or chambers having a continuous
25 as well as a periodical communication with each other, by which the upper apartment is kept supplied with water for evaporation,—the continuous communication of the lower with the upper apartment being effected by
30 the pressure of steam generated in the lower chamber, upon the surface of the water therein and force it up through the tube into the upper apartment,—and the periodical communication by means of a valve which will
35 be opened when the water in the lower chamber shall be discharged therefrom and the surface be below the end of the fountain tube by the weight of the accumulated water in the upper apartment,—and the water hav-
40 ing re-entered the lower chamber and the steam generated, it (the valve) again closes and the upper apartment is supplied as before, and thus without intermission the evaporator is rendered self-supplying.

45 To enable others more fully to understand my invention I will describe its construction and operation.

A represents a vase made of any desired configuration, proportions, and material.

50 B is the upper apartment made in the form of a basin to receive the water for evaporation.

C is the lower chamber or apartment made steam and water tight except its communication with the upper apartment,—for containing water for the two fold purpose of

generating steam and supplying the upper apartment with the fluid.

D is a tube provided with a screw nut E near the middle of its length which fits a
60 female screw thread formed in the bottom of the upper apartment by which it is confined in a vertical position and through which the continuous communication is effected. This tube extends within about a
65 quarter of an inch of the bottom of the lower chamber C, and above the bottom of the upper apartment B, a suitable distance and is then curved in the manner of a soda fountain tube to direct the water into the
70 upper apartment.

E is a screw nut larger than that of the tube D secured in a female screw thread formed in the bottom of the upper apartment B and communicating with the lower
75 chamber C through an opening G, and provided with an india rubber or other valve H on its underside secured by a pin so as to allow it to open and close. Through this screw nut E the periodical communication
80 of the upper with the lower chamber is effected. I, is a horizontal partition near the underside of the bottom of the upper apartment provided with openings corresponding with the tube D, and valve nut F, and partly
85 serves as the top of the lower chamber for the purpose of relieving the bottom of the upper apartment from the pressure of the steam in the lower chamber.

Operation: The lower chamber C, being
90 filled about two-thirds with water, through the opening of the screw nut E of the tube D which is then inserted and secured therein, the vase A is placed upon the stove and as soon as the water is heated and a sufficient
95 quantity of steam is generated to produce the required pressure upon the surface of the water and to keep the valve H, closed it will be forced up through the tube D in a continuous stream until the water is so far expelled from the lower chamber C, as to get below the end of the tube D. At this moment the steam in the chamber C will be permitted to escape through the tube D, and the pressure against the valve H in the lower
105 chamber thereby relieved; when the pressure of the water in the upper apartment B upon the valve H, will instantly cause it to open, and thus permit the water to pass into the lower chamber, when by the pressure
110 of the steam generated therein the water will be again forced into the upper apartment

and so on until the water shall have evaporated. This vase serves as an ornamental fountain and vaporizer.

Having thus described my invention and improvement of a self-supplying evaporating fountain, what I claim therein as new and desire to secure by Letters Patent, is—

Constructing a vase or other like article with two apartments or chambers B, C, having a continuous as well as a periodical communication with each other, by which it is rendered a self supplying evaporating fountain, the continuous communication of the lower chamber C, with the upper apartment B or evaporator being effected by the pres-

sure of steam upon the surface of the water in the lower chamber, and the periodical communication by means of the valve H secured in the screw nut E which will be opened by the pressure of the accumulated water in the upper apartment when relieved of the pressure of the steam in the lower chamber, as fully described and represented.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

GEO. H. THATCHER.

Witnesses:

WM. P. ELLIOT,

A. E. H. JOHNSON.