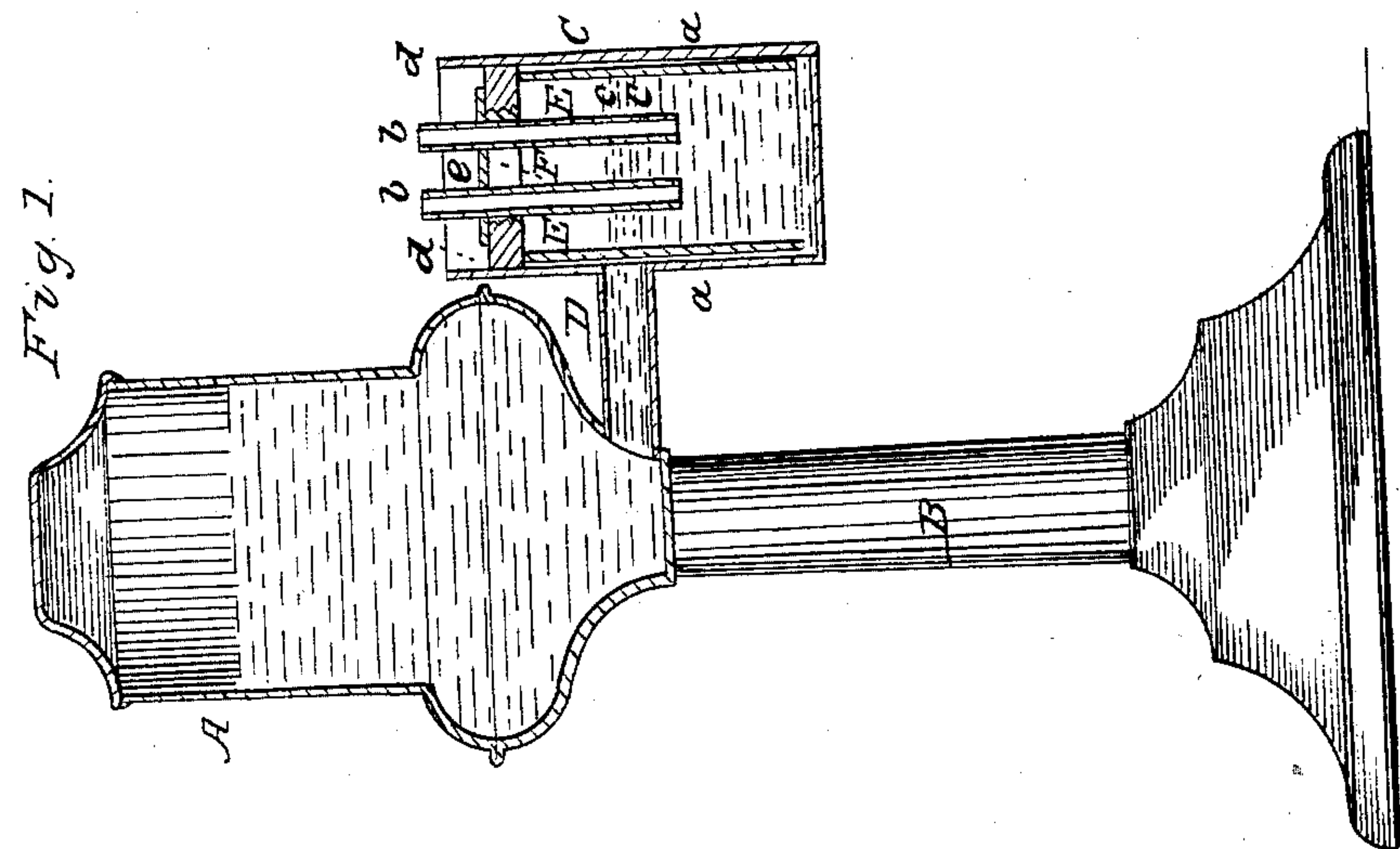
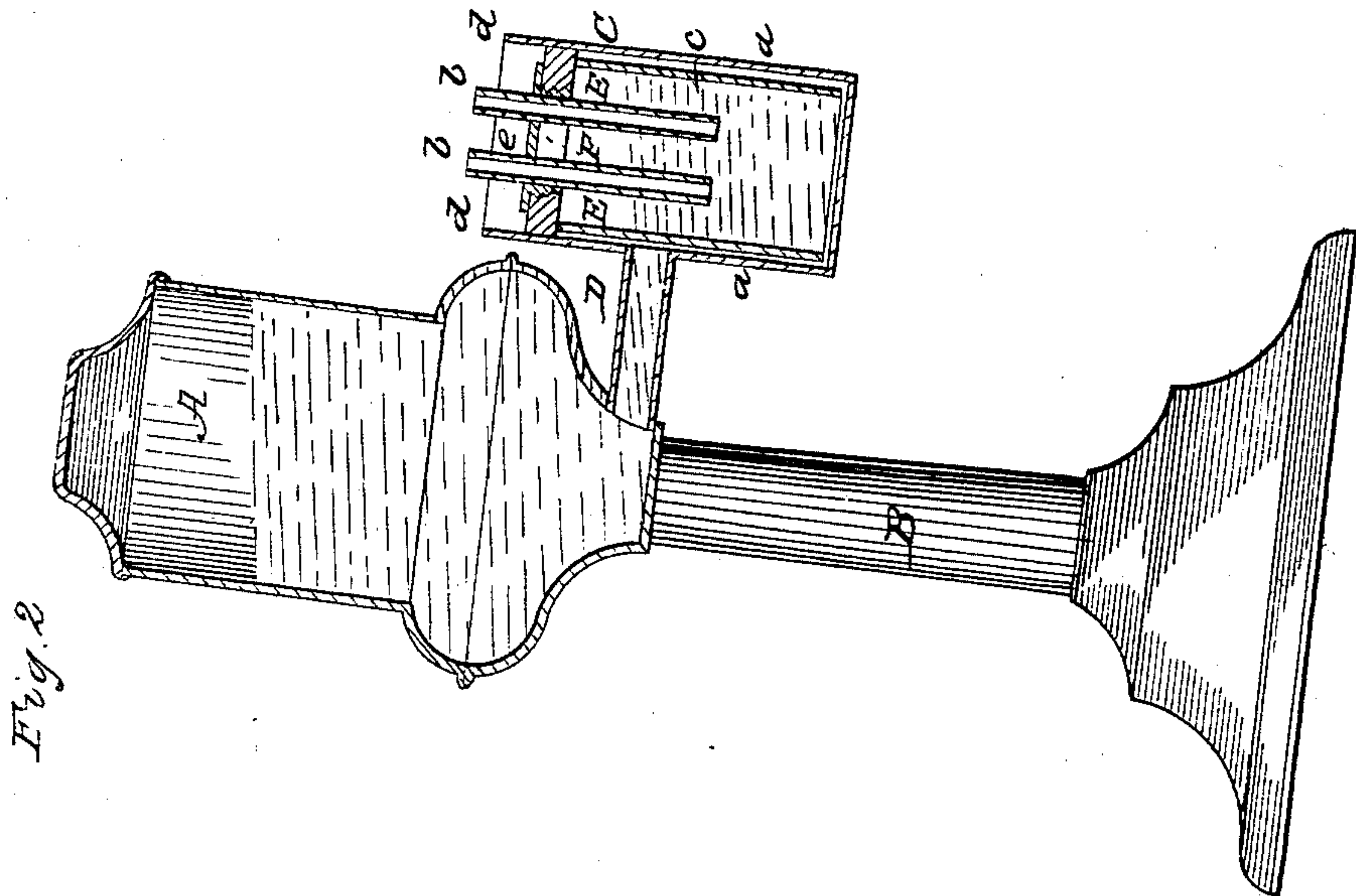


H. W. ADAMS.

Lamp.

No. 17,658.

Patented June 30, 1857.



UNITED STATES PATENT OFFICE.

HENRY W. ADAMS, OF NEW YORK, N. Y.

FOUNTAIN-LAMP.

Specification of Letters Patent No. 17,658, dated June 30, 1857.

To all whom it may concern:

Be it known that I, HENRY W. ADAMS, of the city, county, and State of New York, have invented certain new and useful Improvements in Fountain Lamps for Hand and Table Use; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of a lamp, constructed according to my invention, showing the fountain or reservoir, burner cup and their appendages in section. In this view the lamp is supposed to be standing on a table. Fig. 2 is a similar view of the lamp showing it in the position it might assume if carried carefully in the hands.

Similar letters of reference indicate corresponding parts in both figures.

My improvement has for its object the prevention of the overflow of oil at the burner cup when, by carrying the lamp carefully and tilting it, the burner cup is allowed to hang below its intended position relatively to the reservoir or fountain and the tube which conveys oil from the fountain or reservoir is allowed to incline downward toward the burner cup. To effect this it is only necessary to prevent any air entering the fountain or reservoir to get above the oil, and with this view this improvement consists in a certain arrangement of passages between the reservoir and the burner cup whereby when the lamp is tilted in such a way as to be liable to produce overflow the said passages are sealed by the oil itself against the entrance of air to the fountain or reservoir.

To enable others skilled in the art to make and use my invention I will proceed to describe it with reference to the drawings.

A is the fountain or reservoir supported on the top of a pillar or stand B.

C is the burner cup connected with the lower part of the fountain or reservoir by a tube D and fitted at the top with the usual cap F, which contains the burner or burners (b) and is movable for the purpose of filling the lamp. The tube D does not communicate directly with the central portion of the burner cup which contains the wick, as I place within the burner cup a cylinder or lining E, of nearly the full size

of the said cup connecting the upper part of the said cylinder or lining all around, perfectly air-tight with the sides of the cup above the connecting tube D, and allowing the bottom of the said cylinder or lining E, to extend nearly to the bottom of the cup so as to form an annular space (a) (a) between the said cup and the said cylinder or lining E, leaving the said cylinder or lining disconnected from the cup at the bottom so as to form a communication from the connecting tube D, through the space (a) (a) and under the bottom of the said cylinder or lining E, with the central portion of the cup containing the wick, and on the opposite side of the cylinder or lining, to the connecting tube D, exactly opposite to the said tube, I provide an aperture (c) of the same size as the connecting tube D.

The lamp is filled by removing the cap F, holding the lamp nearly horizontal with the burner cup above the fountain or reservoir, and inserting the spout of the feeder or oil can into the burner cup to pour the oil into the cup. The oil then runs under the bottom of the cylinder or lining E through the space (a) (a) and connecting tube D, to the fountain or reservoir, driving out the air through the same passages. When the lamp is placed erect, the oil runs from the reservoir through the connecting tube D, and space (a) (a) under the bottom of the cylinder E, and through the hole (c) into the burner cup, where, as well as in the space (a) (a), it remains when the lamp is lighted, on a level with the top of the tube D and hole (c) as shown in Fig. 1. As the oil is consumed and the surface level sinks, air enters through the top of the hole (c) passes around the upper part of the space (a) (a) and through the upper part of the tube D and passes up the sides of the fountain or reservoir and rises to the surface of the reservoir. When the lamp is tilted as shown in Fig. 2, were it not for the hole (c) and space (a) (a) air would enter from the top of the burner cup through the upper portion of the tube D into the fountain or reservoir as it does in the common fountain lamp, but this is prevented by the level of the oil in the cup being caused to rise on that side of the cup opposite the tube D, which will then be the lowest side of the cup, and the oil is thereby caused to close and seal the hole (c) as shown in Fig. 3 and consequently

to exclude the air and prevent its entrance into the fountain or reservoir and the pressure of air on the surface of the oil within the cylinder E prevents the oil passing
5 from the fountain to the burner cup and hence prevents overflow.

(d) (d) represent the upward extension of the sides of the burner cup above the cap F, forming the receptacle (e) above the cap for
10 any oil that may be caused by expansion in the fountain or reservoir and burner cup to flow up through the wick or the air holes in the top of the burner cup. This receptacle prevents the overflow of oil through expansion.
15

What I claim as my invention and desire to secure by Letters Patent, is:

Providing the burner cup with an internal cylinder or lining E, to leave an open bottomed but close topped passage (a), (a), 20 around the burner in communication with the tube or passage D, coming from the fountain or reservoir; said internal cylinder or lining being provided with an opening (c) opposite the tube or passage D, substantially 25 as and for the purpose herein specified.

HENRY WRIGHT ADAMS.

Witnesses:

I. W. COOMBS,
W. TUSCH.