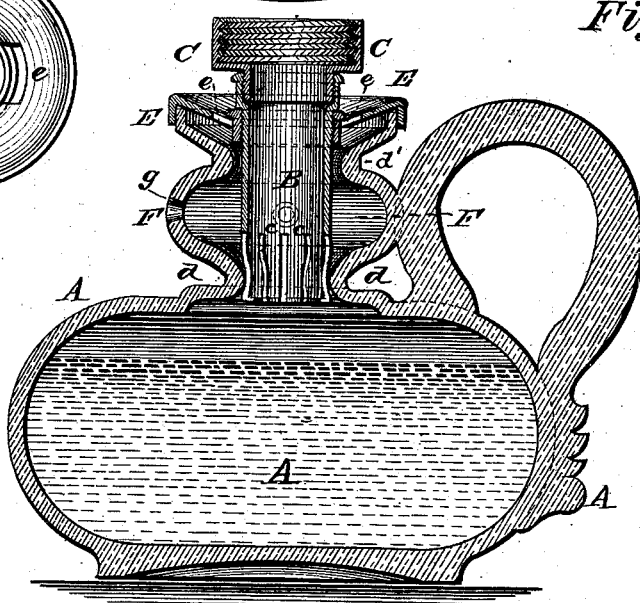
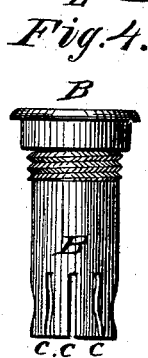
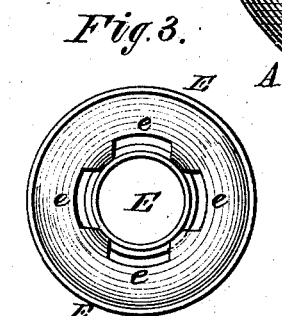
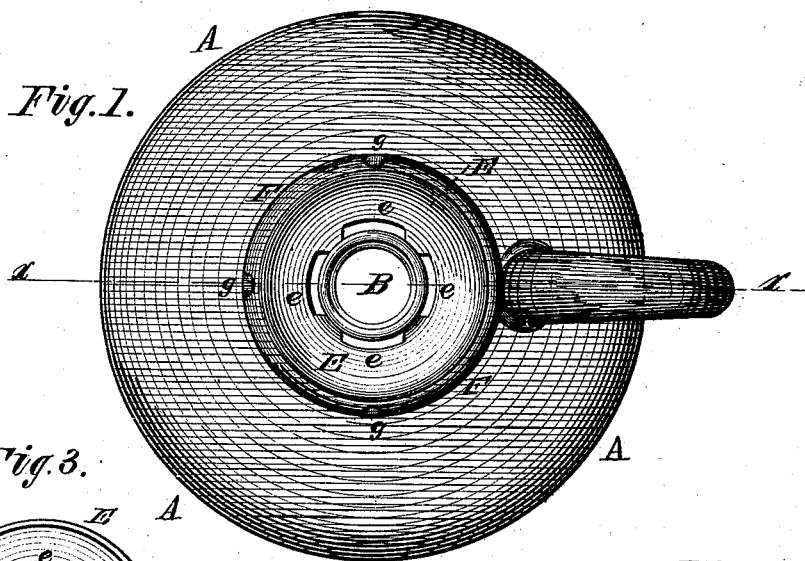


R. D. HAINES.
Lamp-Collar.

No. 217,095.

Patented July 1, 1879.



Witnesses:
P. Dieterich.
M. H. Duffy.

Inventor
Robert D. Haines
Per *C. H. Watson & Co.* Attorneys.

UNITED STATES PATENT OFFICE.

ROBERT D. HAINES, OF CORNING, NEW YORK.

IMPROVEMENT IN LAMP-COLLARS.

Specification forming part of Letters Patent No. **217,095**, dated July 1, 1879; application filed April 18, 1879.

To all whom it may concern:

Be it known that I, ROBERT D. HAINES, of Corning, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to lamps especially adapted for the use of kerosene and like burning-fluids.

The object of the improvement is to provide a lamp with certain details of construction, as presently explained, which will insure both cleanliness and safety; and to this end it consists in the construction and arrangement of certain parts, as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view; Fig. 2, central vertical section on line *x x*, Fig. 1. Figs. 3 and 4 are details of a lamp embodying my improvements.

A refers to the body of the lamp, which may be made of either glass or metal. The upper portion of the lamp may be made separate and united with the body at the throat *d*, or the whole may be made integral.

B designates a tube, formed of brass or any suitable metal or material, and, as shown in the accompanying drawings, is formed with slits or slots *c* at its lower end. By reason of these slots the intervening portions of metal constitute springs, so that when the tube is passed down into the lamp the said springs will engage with the throat *d* of the lamp, and thereby hold the said tube in position.

The throat *d* of the lamp corresponds in shape to the shape of the tube, so that the springs will act effectively and firmly upon the same.

It will be seen that the lower ends of these springs are about on a plane with the points at which the neck ends and the body A commences.

E represents a cap, formed with slots or openings *e*, and this cap is provided with a

central aperture, into which the upper portion of the tube B is screwed.

C designates the screw-cap, to which the burner is to be attached.

In use, the surplus oil, which is always drawn up by the wick, will flow back into the lamp through the chamber F, thereby leaving the outside of the lamp clean and odorless.

It will be seen that this chamber F is constituted by a hollow bulb formed upon the body A, and that it is contracted at *d* and *d'*, as shown. The upper neck or contracted portion, *d'*, is larger in diameter than the part *d*, so that a passage is left between its interior surface and the tube B; hence air will be free to pass into the chamber F through openings *g*, thence upward around the tube B and out through openings *e* in the cap E, and at the same time waste oil will be permitted to flow down through openings *e*, and through the passage formed between the tube B and the interior wall of the upper neck, *d'*.

Safety is insured by reason of a draft caused by the necessary supply of air, which, during the burning of the lamp, passes across the openings between the rim of the lamp and the burner-collar, heretofore described, whereby the lamp will be always kept in a cool condition.

If desired, the spring on the lower end of the tube may be dispensed with and a screw-thread employed. In such case the throat of the lamp will be formed with a corresponding screw-thread.

The lamp may have an ordinary feeder or supply-tube, if desirable, although the same is not shown in the accompanying drawings.

What I claim, and desire to secure by Letters Patent, is—

1. In a lamp, the body A, having a hollow bulb or chamber, F, having upper and lower contracted portions or necks, *d d'*, in combination with the slotted cap E, fitted above the upper neck of the chamber, and the wick-tube B, secured at its upper end in the said cap and held at its lower end by the neck *d*, a passage for the downflow of oil being between the tube and the upper neck, as set forth.

2. The combination, with body A, of the upper hollow bulb or chamber, F, formed with openings *g*, cap E, formed with a series of

slots, *e*, and the wick-tube B, the said chamber having an upper contracted part or neck, *d'*, somewhat larger in its interior diameter than the wick-tube, and a lower neck, *d*, made smaller in diameter, as shown, and for the purposes set forth.

3. In combination with the chamber F, located above the body A, and formed with openings *g* and upper contracted neck, *d'*, the slotted cap E and wick-tube B, secured through said cap, a passage suitable for the

downflow of oil or an upward current of air being between the wick-tube and the neck *d'*, as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ROBERT D. HAINES.

Witnesses:

C. B. ELLISON,

A. HOUGHTON, Jr.