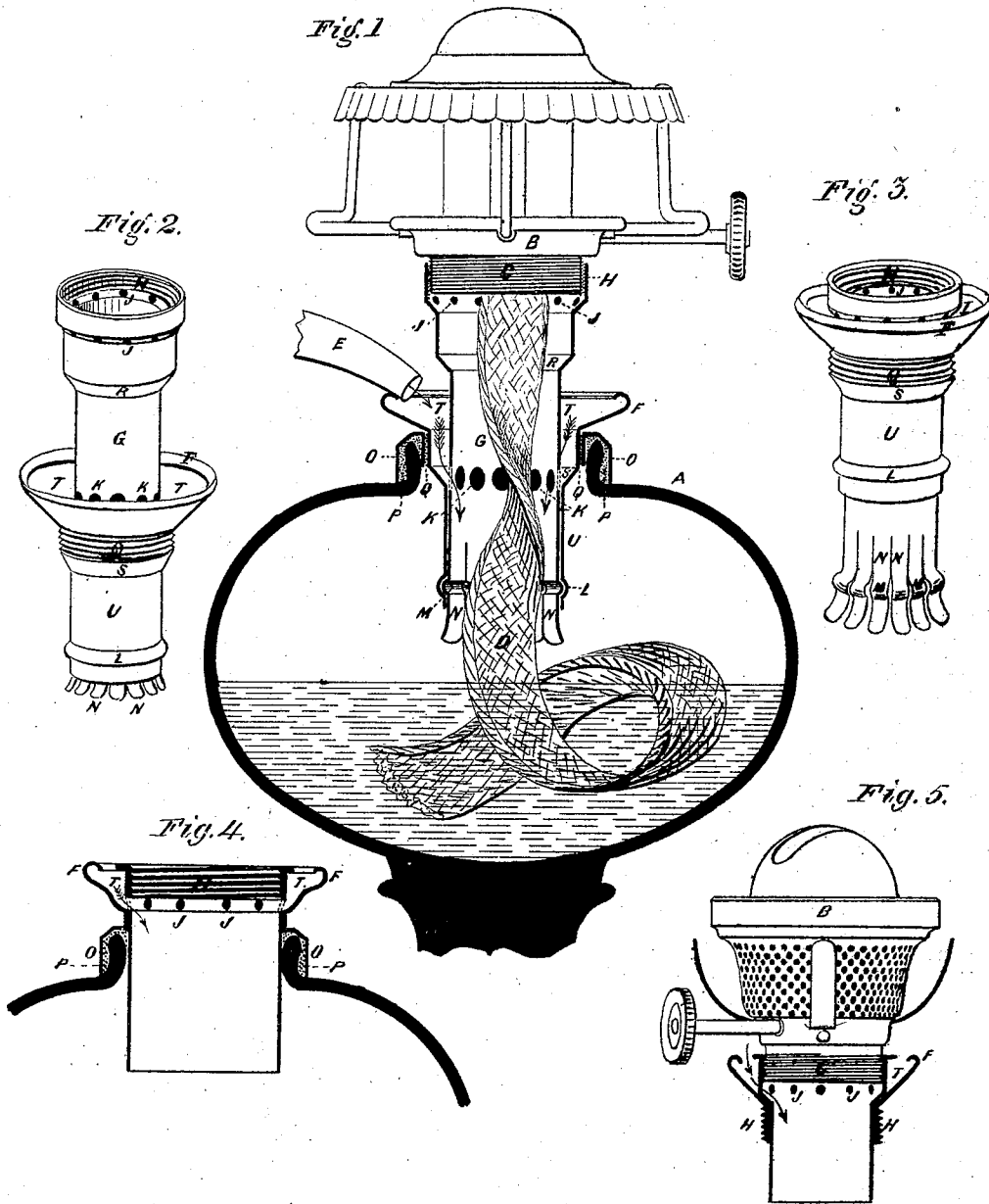


G. H. SIMMONS.
Lamps.

No. 136,553.

Patented March 4, 1873.



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UNITED STATES PATENT OFFICE.

GEORGE H. SIMMONS, OF BENNINGTON, VERMONT.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 136,553, dated March 4, 1873.

To all whom it may concern:

Be it known that I, GEORGE H. SIMMONS, of Bennington, in the county of Bennington and State of Vermont, have invented a new and valuable Improvement in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1 and 2 show my lamp arranged for filling with oil. Figs. 3, 4, and 5 are modifications of my lamp.

My invention has relation to kerosene and other lamps; and consists in the construction and novel arrangement of a catch-funnel and sliding feed-tube, whereby the oil is prevented from getting on the outside of the lamp or coming in contact with the cement by which the collar is fastened; these parts being arranged to be operated with great convenience, all as is hereinafter described.

In the accompanying drawing, the letter A designates a lamp-fount. B represents a lamp-burner, at the base of which is arranged the screw C. D indicates a wick. E designates the spout of a filling-can, and, in connection with the arrows—which show the course of the oil—aims to illustrate the operation of filling the lamp. F represents the introverted edge of the catch cup or funnel T, which aids in preventing the escape of oil. G indicates the inner or feed tube, at the upper end and upon the inner side of which is arranged the screw-thread H. J J designate apertures through and near the upper end of tube G, of suitable size and number, through which the excess or overflow of oil escapes into the lamp, and is saved. K K indicate apertures through the tube G, of suitable size and number, and suitably located, through which the oil passes when filling the lamp, as shown in Fig. 1. L designates an annular groove near the lower end of the tube U of the catch-funnel, into which expand the springs N N when the tube G is raised, as when filling a lamp. M M indicate beads on the springs N N, formed to correspond with and fit into the annular groove L in the tube U. The springs are of suitable dimensions, located at and forming a part or the whole of the lower end of

tube G when said tube is used in connection with tube U, as in Figs. 1, 2, and 3. The office of these springs is to support and hold up the burner, chimney, and tube G for the purpose of filling the lamp, as shown in Figs. 1 and 2. The lower ends of the springs should be slightly bent outward to prevent the tube G from being pulled out of tube U. O designates the collar, fastened to the neck of the lamp by the cement P. Q indicates the screw or joint between the collar O and catch-funnel tube U. R represents a conical expansion of the feed-tube, which fits the conical seat S in the funnel when said feed-tube is pushed down to place, as shown in Fig. 3.

Figs. 4 and 5 illustrate the manner in which that part of my invention operates which relates to catching and conveying back into the lamp the excess or overflow of oil, and preventing the same, as well as the oil which may rise in the wick, from coming in contact with either the cement or with the screw in the collar, and working out through the said screw to the outside of the lamp. This part of my device may be attached to lamps in cases where my feeding arrangement or device may not be used.

In Fig. 4 the catch-cup is illustrated as forming a part of the structure of the collar.

In Fig. 5 the catch-cup is illustrated as forming a part of the structure of the burner, in which case the tube U would be a continuation of the base of the burner.

The several parts of my invention may be constructed of any suitable material.

In lamps as ordinarily constructed more or less oil finds its way out through the screw-joint between the collar and the burner. The oil also comes in contact with and softens the cement with which the collars are fastened to the necks of the lamps. In my invention all of the oil is deposited in the lamp at a point sufficiently low, and there controlled in such a manner that none can escape except by combustion. There is no need of unscrewing or removing the burner, globe, or chimney in filling the lamp.

I claim—

1. The sliding feed-tube G, having the expansion R, in combination with the funnel-tube, having a suitable seat, S, for said expansion, substantially as specified.
2. The vertically-sliding feed-tube G, hav-

ing at its upper end and middle the apertures J and K, and its lower end slitted to form expanding springs N and bead M, substantially as shown, and for the purposes set forth.

3. The catch-funnel tube T, constructed as described, and shown in Fig. 4, consisting of the collar O, tube U, and screw-threaded collar H, with openings.

4. The combination of the sliding feed-tube G, provided with the apertures J and K and expanding springs N, and catch-funnel tube T,

provided near its lower end with the annular groove L, substantially as specified.

5. The funnel-tube U, having an annular groove, L, substantially as specified, and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: GEORGE H. SIMMONS.

HIRAM KOON,

GEORGE F. KOON.