

C. F. A. HINRICHS.
LAMP.

No. 178,774.

Patented June 13, 1876.

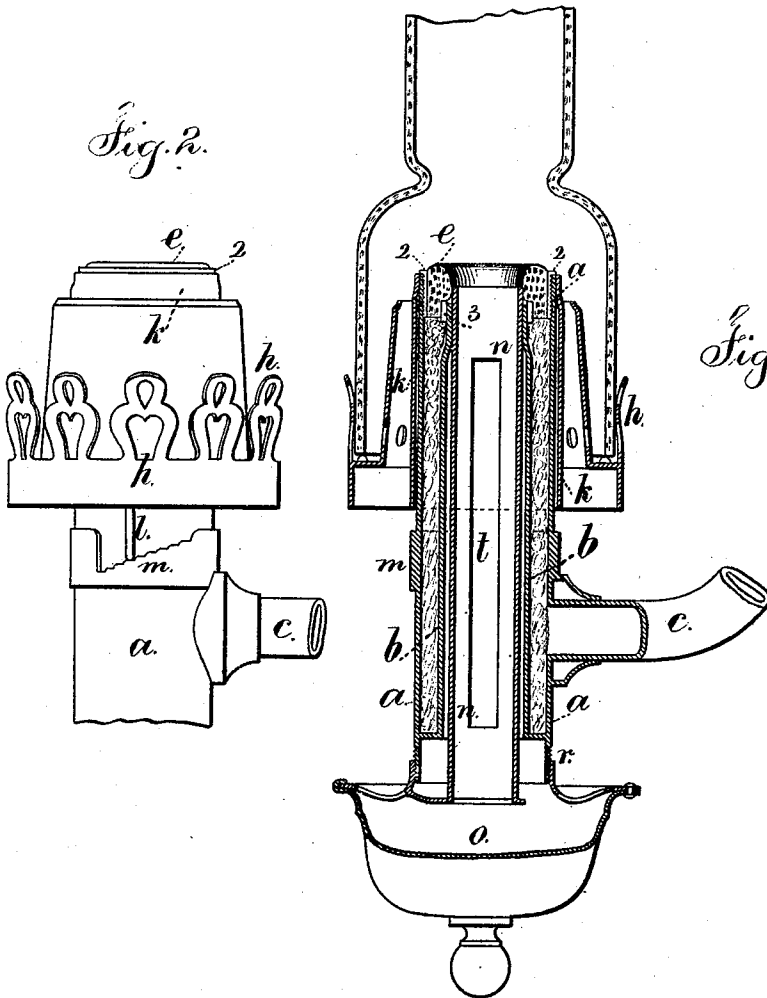
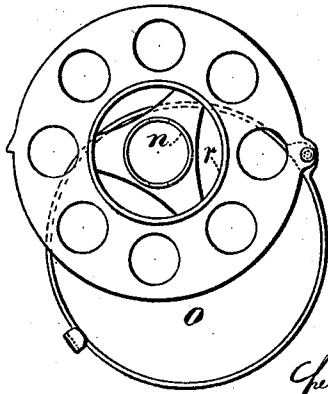


Fig. 3.



Witnesses
Chas. H. Smith
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att'y

UNITED STATES PATENT OFFICE.

CHARLES F. A. HINRICHS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **178,774**, dated June 13, 1876; application filed April 21, 1876.

To all whom it may concern:

Be it known that I, CHARLES F. A. HINRICHS, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Lamps, of which the following is a specification:

This improvement is intended for use with an Argand lamp containing a wick made of porous mineral substances, so as to regulate the height of flame without raising or lowering the wick.

The mineral wick is set into a metallic case, open at the bottom, and this is placed in the upper part of the oil-space, between the outer tube and the inner air-tube. The upper part of the mineral wick is exposed, and the flame is regulated by an external sleeve and chimney, raised or lowered by inclines, and an internal supplemental air-tube, that is raised or lowered by the screw that attaches the drip-cup to the burner.

By this construction the expensive devices that have been proposed for the air-tube are dispensed with, and the air-tube is open and unobstructed, so that a torch or lighter can be introduced therein.

In the drawing, Figure 1 is a vertical section of the burner complete. Fig. 2 is an elevation of the burner and external sleeve, and Fig. 3 is a plan of the supplemental air-tube and drip-cup. The tube *a* is connected at the bottom to the air-tube *b*, in the usual manner, and a supply-pipe, *c*, leads to a fountain. The annular space between *a* and *b* is filled, or nearly so, with cotton or similar fibrous material, to draw the oil from the lower part of the annular space and supply the same to the lower portion of the mineral wick *e*, such wick *e* being made of asbestos or other suitable material, with plaster-of-paris; the composition, however, does not form any part of my invention.

This composition is placed within the holder formed by the short outer and inner tubes or rings 2 and 3, that are connected together at the lower end by cross-bars or bridges, so that the mineral wick is made of the composition filled into the holder between the two short cylinders, and rising above their upper ends. The said mineral wick and its holder

are inserted between the upper ends of the tubes *a* and *b*, and held in place by a screw-thread cut upon the outer surface of the holder 2, screwed into a thread within the tube *a*, so that the mineral wick and holder can be removed and another introduced whenever required.

The same objects may be attained by making the wick-holding case to slip into the tube *a*, and be retained by a bayonet-lock or similar device. Around the tube *a* is the chimney-holder *h*, with a sleeve, *k*, that sets closely upon this tube *a* at the upper end, and this sleeve *k*, chimney-holder, and chimney can be raised or lowered to regulate the amount of the surface of the mineral wick at the outside that is exposed to the current of atmosphere, and this sleeve is raised or lowered by the fingers *l*, that rest upon the notched inclines *m*, fastened upon the tube *a*, said fingers being moved up or down these notched inclines by partially turning the chimney-holder.

The glass chimneys with contracted necks are often very irregular in the height between the base and contracted neck. The notched inclines and fingers serve as a convenient means for raising or lowering the chimney-holder and chimney, in order that the neck of the glass may be at the proper distance above the wick and insure the most perfect combustion.

Within the tube *b* is an auxiliary air-tube, *n*, that is slotted at *t*, and connected at its lower end with the drip-cup *o*, and this drip-cup is connected to the wick-tube by the screw *r*, as usual. By this construction the inner surface of the mineral wick can be more or less exposed by screwing the drip-cup and auxiliary air-tube *n* up or down. The upper part of this tube *n* should be close to the mineral wick; but it is preferable to avoid contact between *n* and *a*, to prevent capillary attraction drawing the oil out of the lamp down the air-tube.

It is preferable to make the lower part of the drip-cup movable, as in my Patent No. 157,330, so as to allow the insertion of a torch or lighter to light the lamp.

I claim as my invention—

1. The metallic holder of a circular form,

made removable from the Argand burner, and receiving the composition mineral wick, substantially as set forth.

2. The auxiliary air-tube *n*, connected to the drip-cup, and adjustable vertically, substantially as set forth.

3. The sleeve *k* and chimney-holder *h*, in combination with the mineral wick *e* and the inclines *m*, for adjusting the sleeve vertically, as set forth.

4. The sleeve *k* and inclines *m*, in combination with the chimney-holder and chimney with a contracted neck, substantially as and for the purposes set forth.

Signed by me this 18th day of April, A. D. 1876.

C. F. A. HINRICHS.

Witnesses:

CHAS. H. SMITH,
GEO. T. PINCKNEY.