

W. MOREHOUSE.

Lamp Burner.

No. 33,749.

Patented Nov. 19, 1861.

Fig. 1.

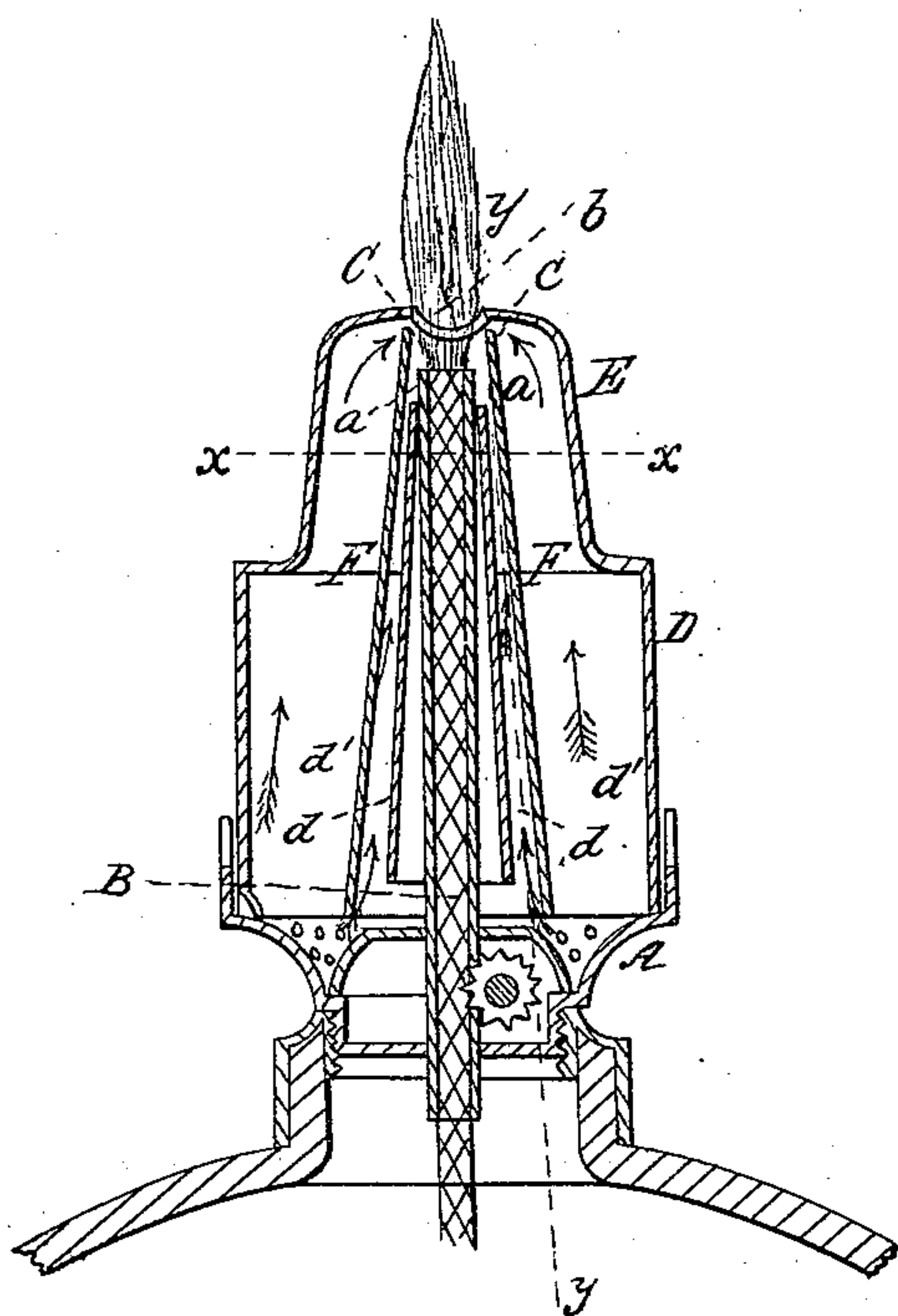


Fig. 2.

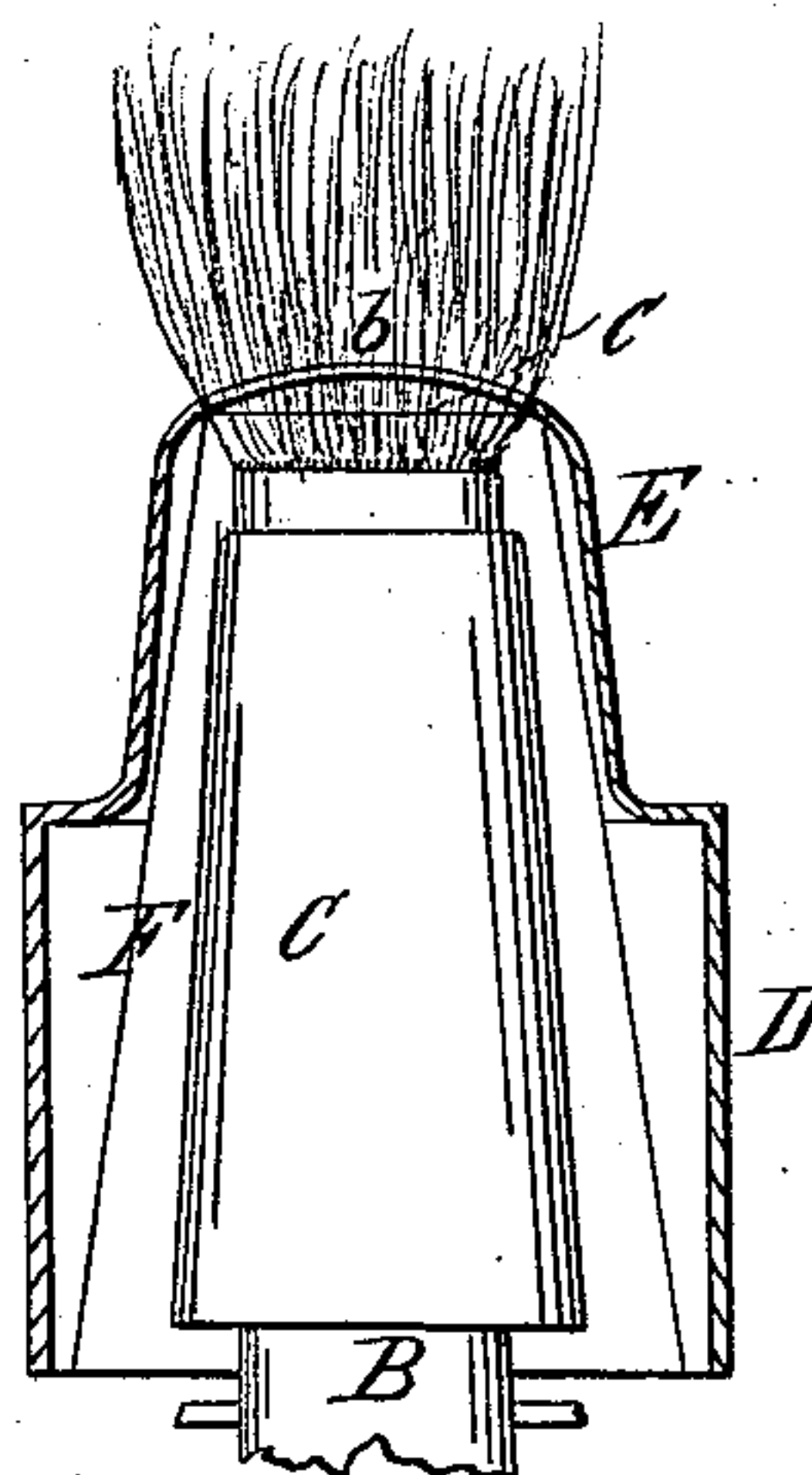
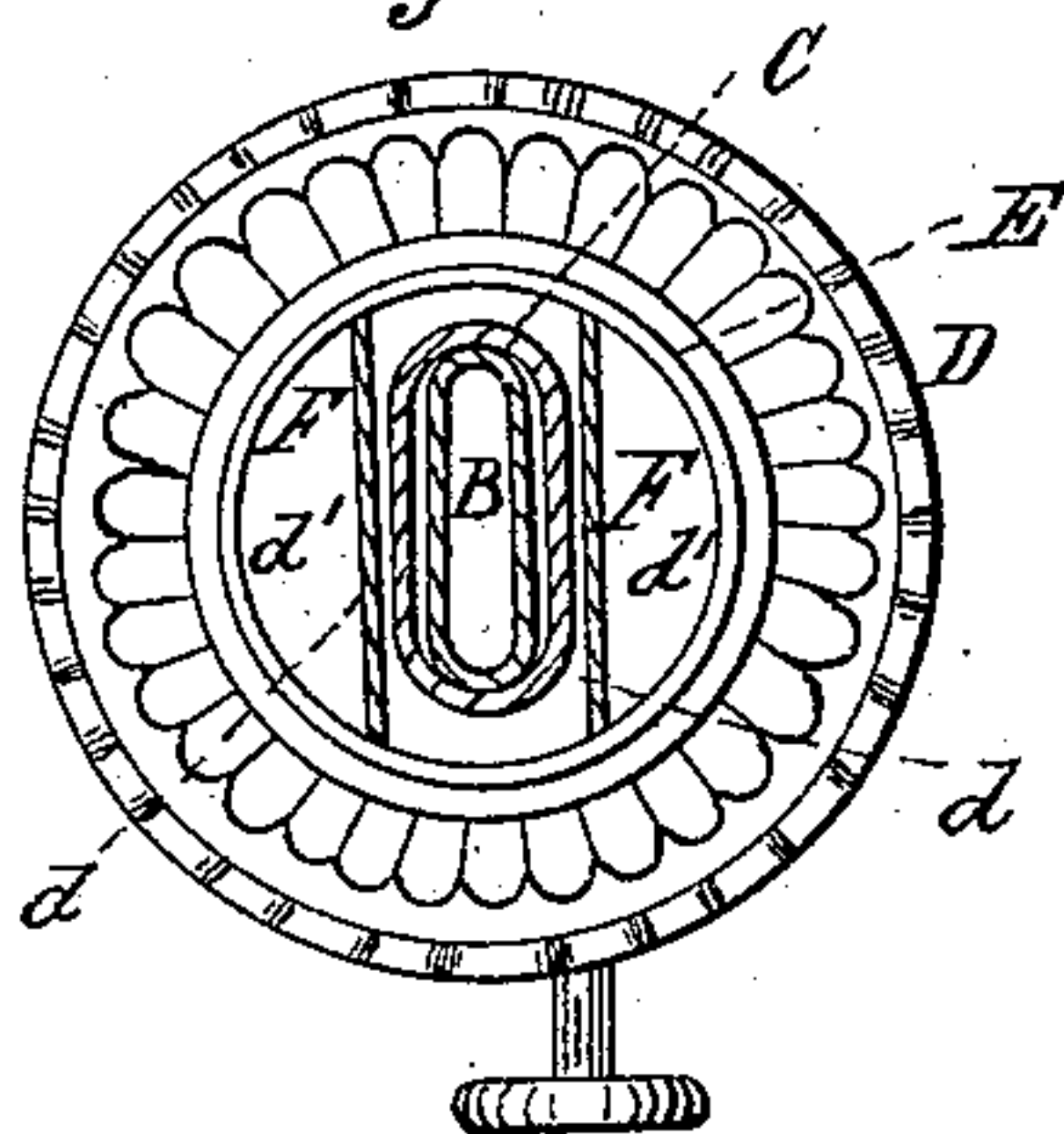


Fig. 3.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM MOREHOUSE, OF BUFFALO, NEW YORK.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 33,749, dated November 19, 1861.

To all whom it may concern:

Be it known that I, WILLIAM MOREHOUSE, of Buffalo, in the county of Erie and State of New York, have invented a new and Improved Lamp; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line xx , Fig. 2. Fig. 2 is a vertical section of the same, taken in the line yy , Fig. 1. Fig. 3 is a horizontal section of the same, taken in the line zz , Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a lamp for burning coal-oil without a glass chimney, one which will burn with a persistent flame and without emitting any smoke.

The invention consists in encompassing the wick-tube with a taper tube and using in connection therewith plates or heaters placed within a suitable case or deflector, the plates or heaters having such a relative position with the wick-tube cone or deflector and the tube which encompasses the wick-tube that a strong draft will be obtained below the top of the wick-tube and the flame supplied with a requisite quantity of air to support proper combustion.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the lower part of an ordinary lamp-top, which is screwed into the lamp. This part A is perforated, as usual, and has the wick-tube B secured vertically and centrally in it. The wick-tube extends upward much higher than usual, and is encompassed by a tube C, which is of slightly taper form, as shown clearly in Fig. 1, the upper end of said tube C being quite close to the wick-tube, so as to leave a narrow orifice a at each side. The tube C does not extend quite as high as the wick-tube B, as will be seen by referring to Figs. 1 and 2.

On the part A of the lamp-top there is placed a case D, which may be of cylindrical form, its upper end terminating in a cone or deflector E, provided with the usual slot h at its apex, said slot being just above the top of the wick-tube.

Within the cylinder or case D there are

placed two plates F F. These plates may be of copper or other metal which is a good conductor of heat, and they extend from the bottom of the case or cylinder nearly up to the top of the cone or deflector, a small space c being allowed between the top of the plates and the top of the cone, as shown in Figs. 1 and 2. The plates F F form partitions in the case or cylinder D, as they extend entirely across it, and thereby form draft-passages $d d'$, as shown clearly in Fig. 1.

When the wick G is lighted, the plates F F, being good conductors of heat, serve to rarefy the air in the passages $d d'$, and a current of air passes up through the perforated lower part A of the lamp-top and through said passages $d d'$ to the flame, as indicated by the arrows. Air also passes up through the tube C, which with the inner passages d , conducts air to the base of the flame, while the outer passages d' conduct air to the sides of the flame near its base. The plates F F are inclined, and the inner passages d , as well as the passage within the taper tube C, will, in consequence of their contracted orifices, cause the air to impinge against the flame with considerable force, and the flame will be supplied with a sufficient quantity of warm air to insure perfect combustion. By this arrangement a very inconsiderable part of the flame is below the cone or deflector, and nearly the whole area, therefore, of the flame is rendered available for illuminating purposes.

I do not claim separately any of the within-described parts, for air or draft passages have been devised and arranged below the flame; but, so far as I am aware, none have been arranged in the way herein shown and described, so as to cause the air to impinge against the flame at its base and supply it with a sufficient quantity of air to support proper combustion, while nearly its whole external surface is rendered available for illuminating purposes.

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

The combination of the cylinder or case D, tube C, and plates F F, arranged relatively with the wick-tube B and cone or deflector E, to operate as and for the purpose set forth.

WM. MOREHOUSE.

Witnesses:

R. H. CAMP,

B. F. MATTESON.