

S. CHENEY.

Lamp Burner.

No. 22,703.

Patented Jan. 25, 1859.

Fig. 1

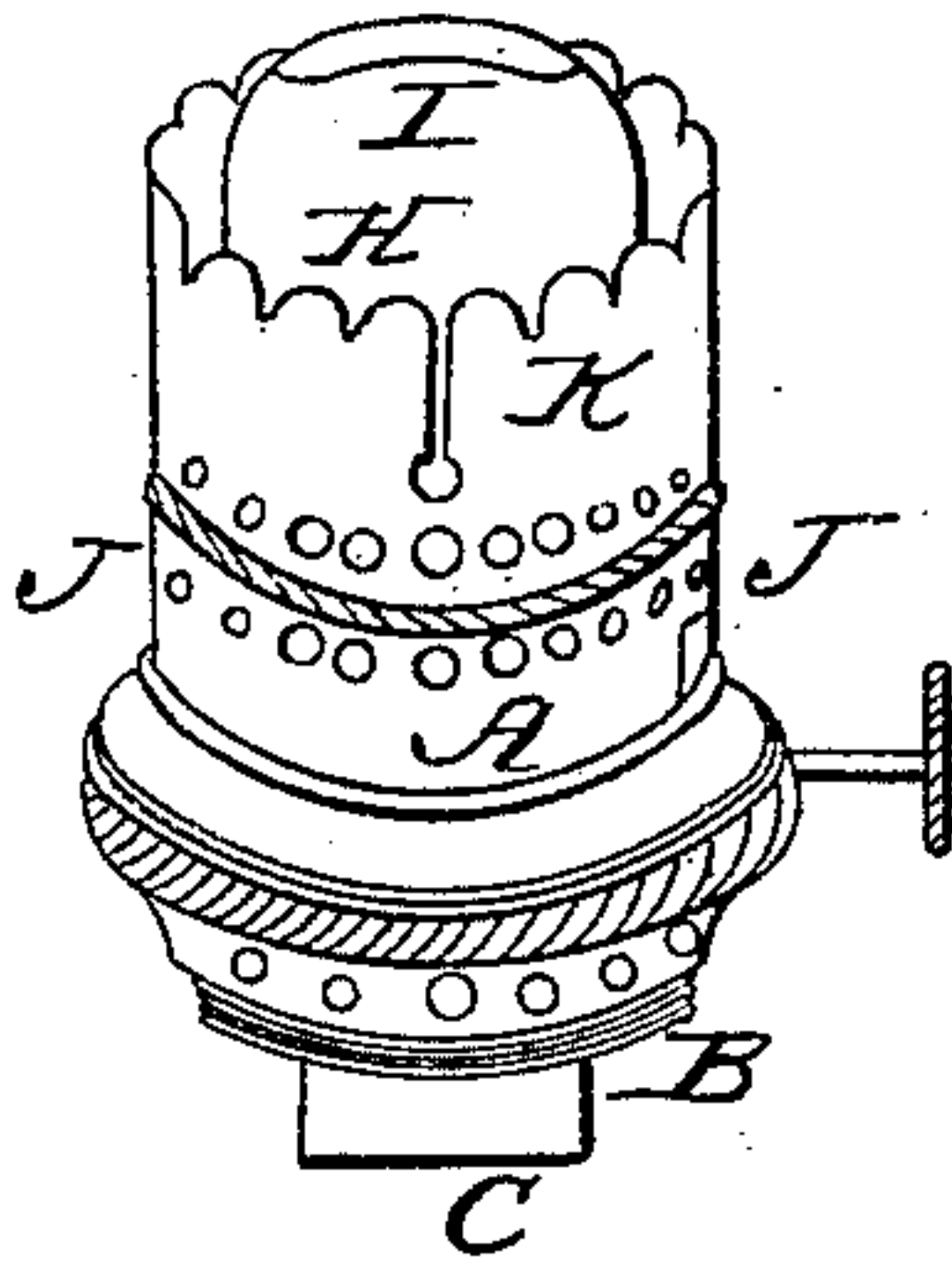


Fig. 2

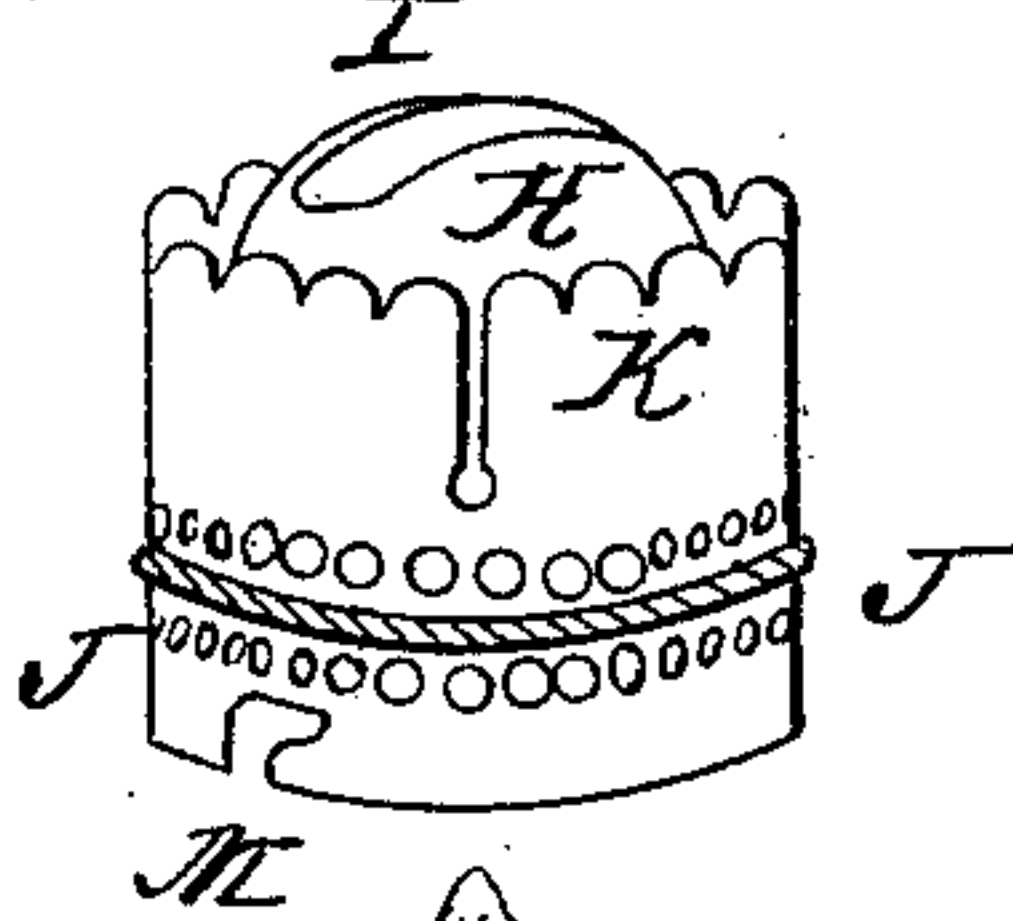


Fig. 3

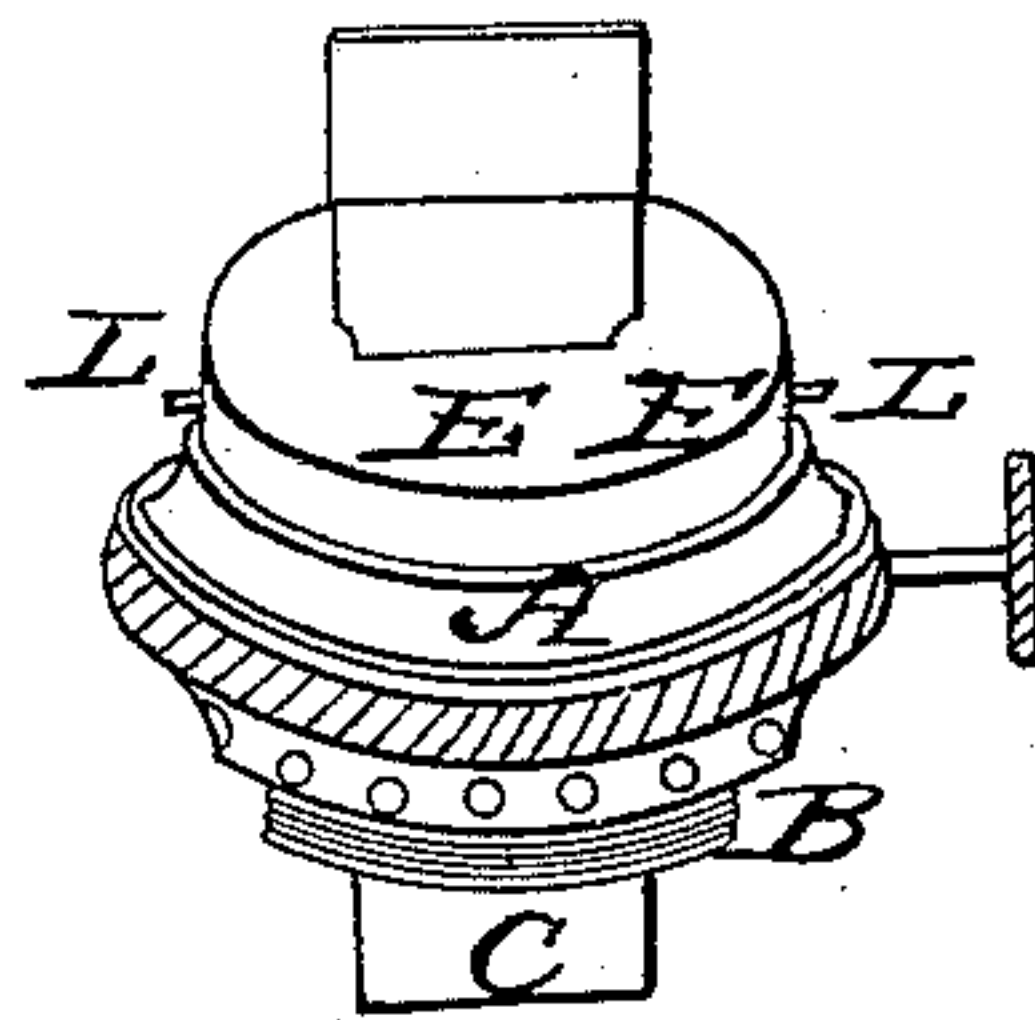


Fig. 7



Fig. 4

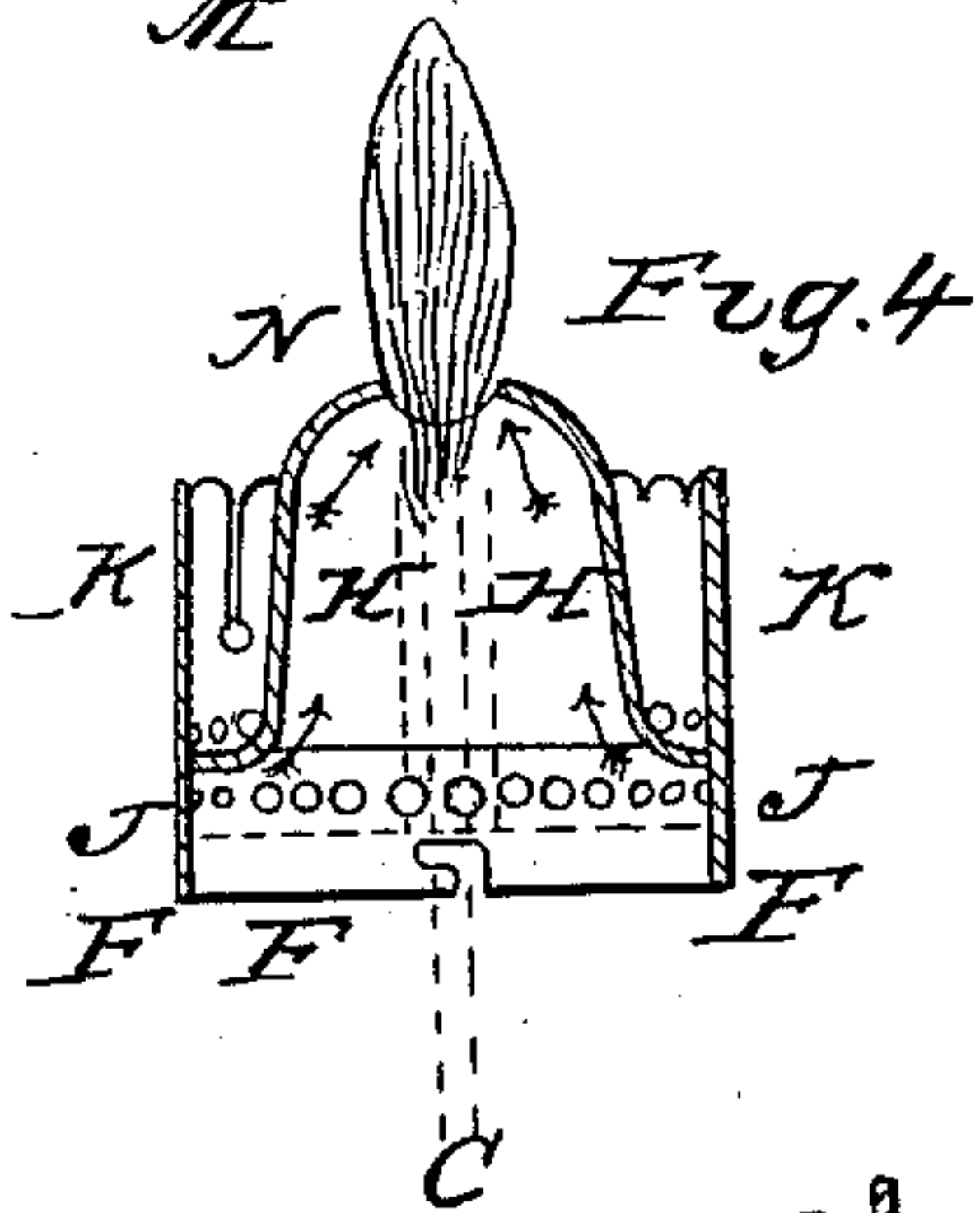


Fig. 6

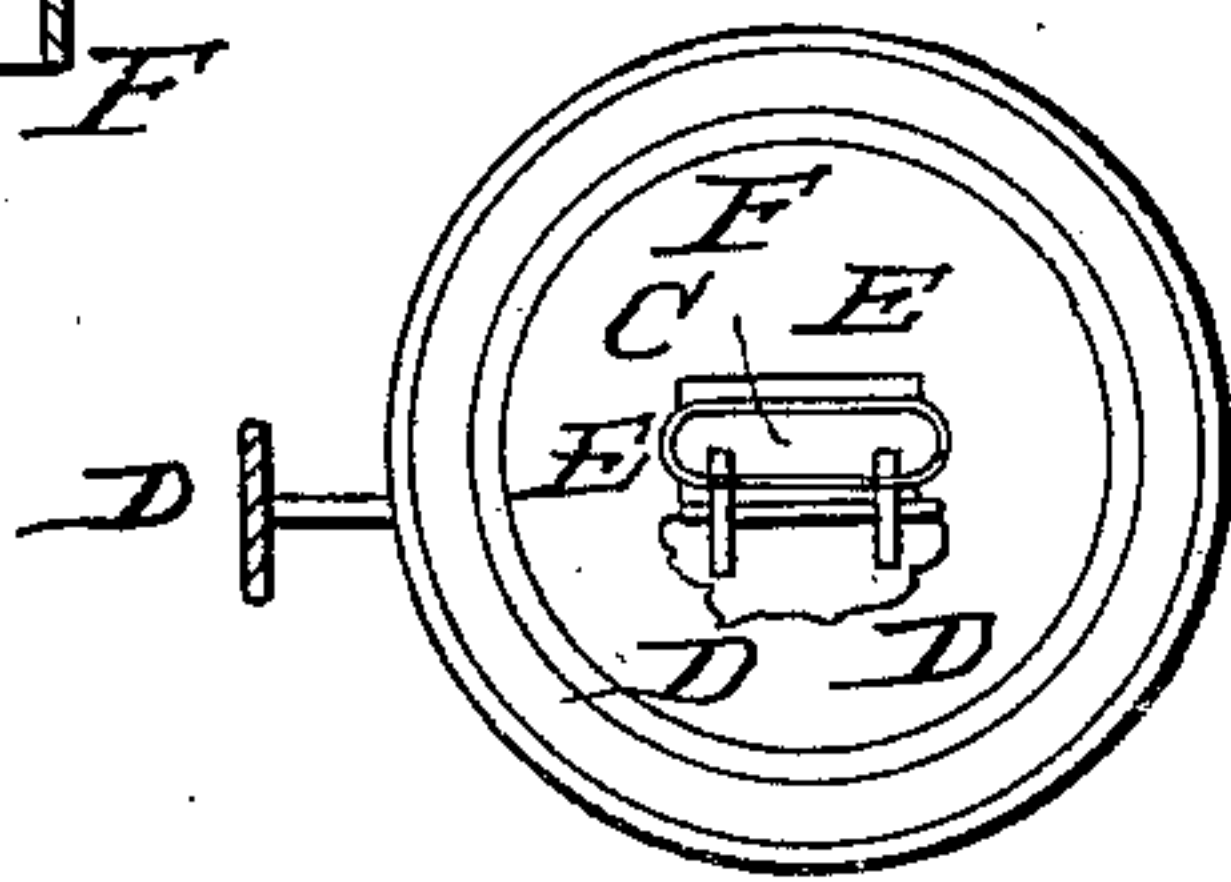
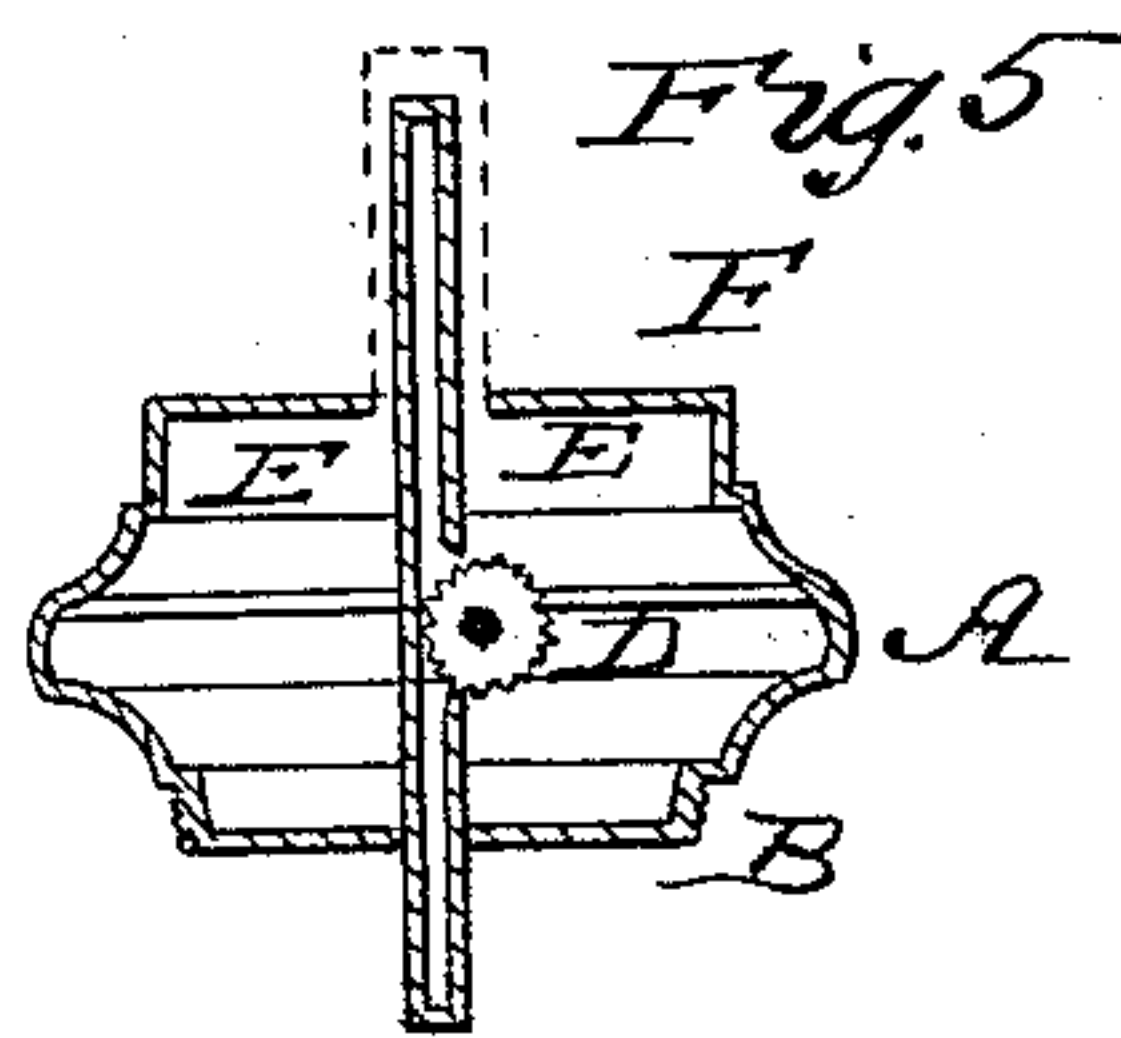


Fig. 5



WITNESSES  
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# UNITED STATES PATENT OFFICE.

SAMUEL CHENEY, OF CLEVELAND, OHIO.

## LAMP.

Specification of Letters Patent No. 22,703, dated January 25, 1859.

*To all whom it may concern:*

Be it known that I, SAMUEL CHENEY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful  
5 Improvements in Coal-Oil Lamps; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making  
10 part of this specification.

The nature of my invention consists in such a construction and arrangement of tubes and caps, that the gas generated in the combustion of the oil, is brought in a concentrated condition into contact with a  
15 strong current of atmospheric air, whereby a much more vivid combustion is produced than can be obtained otherwise.

A, Figures 1, 3 and 5, represent the body  
20 of the lamp top. This is attached in the ordinary manner by the screw B, to the top of the bowl of the lamp.

C, in Figs. 1, 3 and 5, represents the wick tube. This wick tube extends above the body  
25 of the lamp top five-eighths of an inch, and is of such form as to receive a flat wick. The wick is regulated in regard to its height, when burning, by means of the burs D, D, and milled head D' seen in Fig. 6. The form  
30 of the wick tube is shown in sections 5 and 6. Upon each side of this wick tube, is an opening, one-sixteenth of an inch wide and in length nearly equal to the breadth of the wick tube. These openings are shown at  
35 E, E, Figs. 5 and 6.

A gas tube G, Fig. 7, of form like the wick tube, but of sufficient capacity to inclose the openings E, upon each side of the wick tube C, and in height from the diaphragm F  
40 upon which it rests, six-eighths of an inch, being one-eighth of an inch higher than the wick tube C. The position of the gas tube G, is shown by the dotted lines in Figs. 4 and 5. A reflector cap H, Figs. 1, 2 and 4,  
45 is placed above the diaphragm F, and is supplied at its base with numerous openings for the admission of air, as seen at J, J, Figs.

1, 2 and 4, above the diaphragm F. This reflector cap H, curves inward and upward and terminates about one-fourth of an inch  
50 above the gas tube G, in an oval shaped opening I, seen in Figs. 1 and 2, having the form and area about equal to the gas tube G.

A glass chimney is attached to the collar K, which fits the bottom of the chimney  
55 tightly, both of which can be removed from the body of the lamp top, (where it is held by the pins L, and slot M, in Figs. 3 and 2,) for the purpose of trimming the wick.

The operation of this lamp is as follows: 60 The chimney and cap are then removed. The gas tube G, is also removed, and the wick cut closely and evenly with the top of the wick tube C. The gas tube G, is then placed over the wick tube and caused to  
65 rest upon the diaphragm F, so as to cover the openings E, E, upon each side of the wick tube, in the diaphragm F. The wick is then elevated to a point a little below the top of the gas tube, G, and ignited. The  
70 cap H, and chimney are then placed upon the body of the lamp top, as above described. All the gas generated by the burning oil, at the point of the wick, or set free below in consequence of the increased temperature of  
75 the oil from contact with the heated tube, is confined in its ascent within the tube G, and the current of ascending air from the openings J, J, is reflected directly upon the rising gas by the cap H, as indicated at  
80 N, and by the arrows in Fig. 4, by which means, a most vivid combustion is produced.

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

The gas tube G, and openings E E, in  
85 combination with the wick tube C and cap H, when these several parts are constructed and arranged as described, and operating substantially in the manner and for the purpose set forth.

SAMUEL CHENEY.

Witnesses:

J. BRAINERD,  
C. H. BALLON.