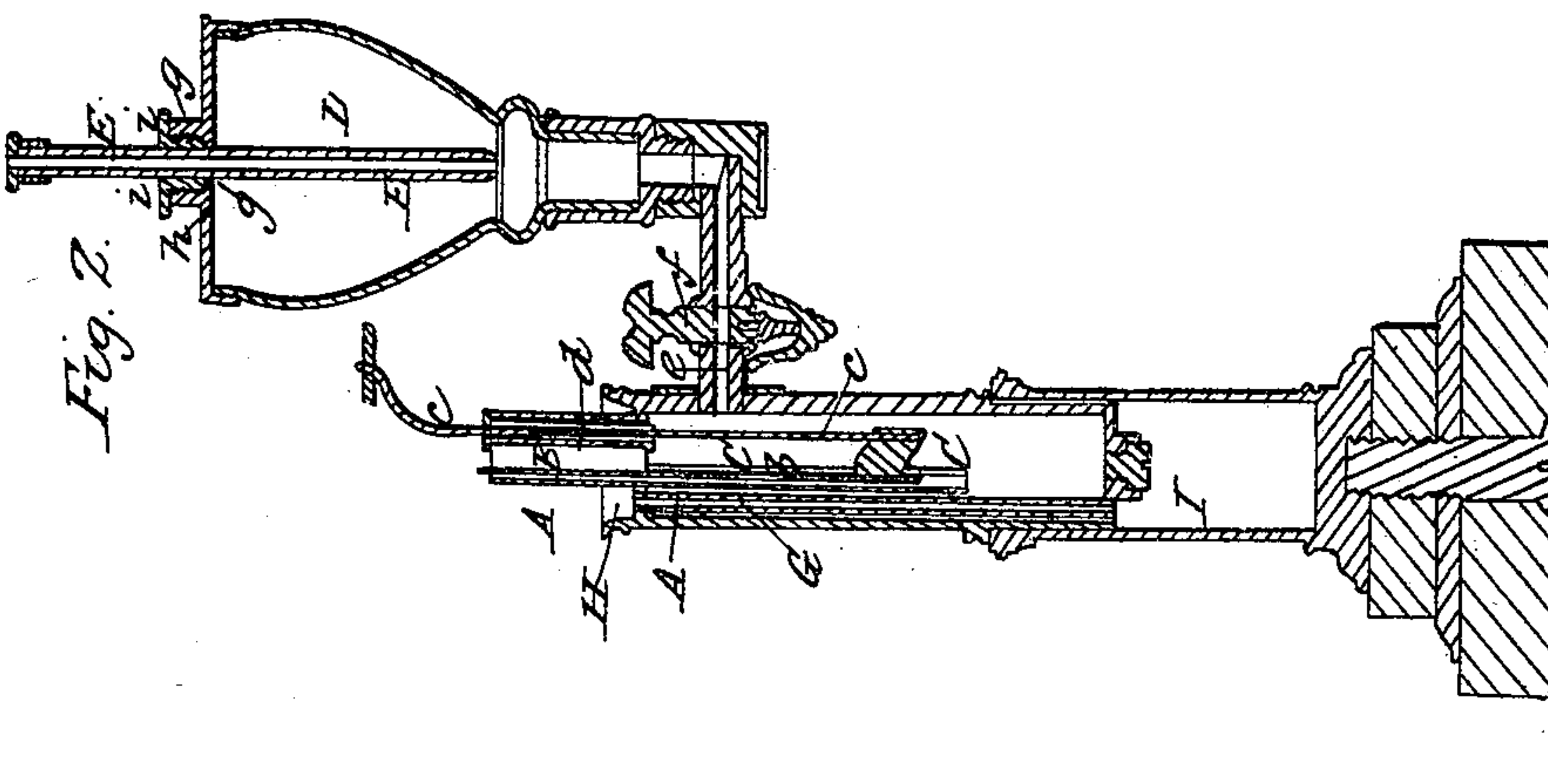
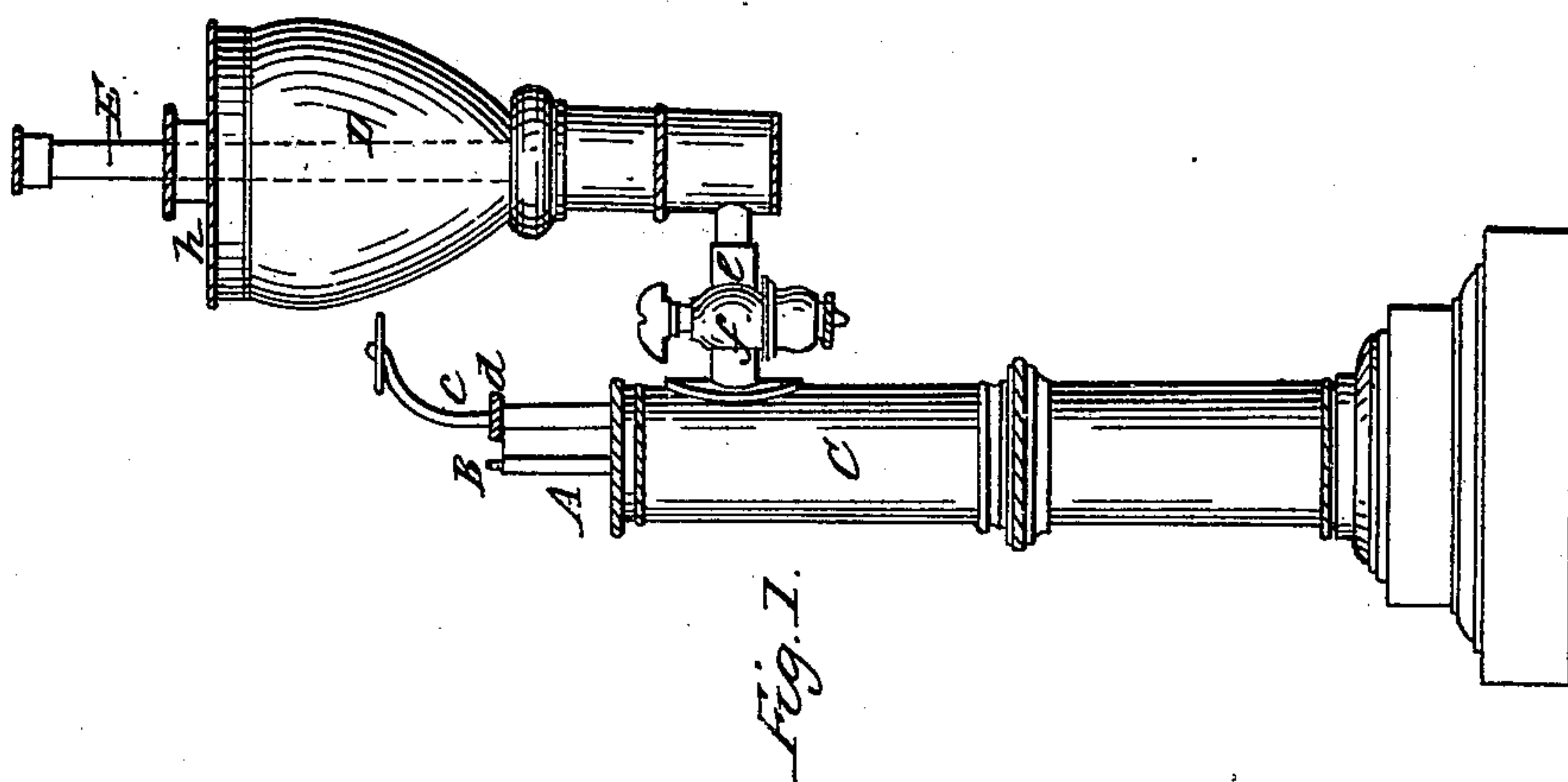


C. SIEDHOF.

Lamp.

No. 9,157.

Patented July 27, 1852.





# UNITED STATES PATENT OFFICE.

CHARLES SIEDHOF, OF LANCASTER, MASSACHUSETTS.

## LAMP.

Specification of Letters Patent No. 9,157, dated July 27, 1852.

*To all whom it may concern:*

Be it known that I, CHARLES SIEDHOF, of Lancaster, in the county of Worcester and State of Massachusetts, have invented a  
5 new and useful Improvement in Lamps Whose Oil-Fountains Extend Above the Level of Their Wicks; and I do hereby declare that the same is fully described and represented in the following specification  
10 and accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1 denotes an external elevation and Fig. 2 a vertical and central section of my improved lamp.

15 In the said drawings A represents the wick tube of it, B the wick, which in this case is a flat or ribbon wick whose lower end is held by nipping plates *a*, *b*, connected to a rod *c* that plays freely up and down with-  
20 in a tube *d* and with sufficient friction to enable it to stand at any desirable elevation. The wick tube is arranged within an oil holder or column C, and is connected with the oil supply reservoir D by a tube *e* in  
25 which there may be a stop cock *f* to shut off the passage from the reservoir to the oil holder, the whole being arranged as seen in the drawings. The oil fountain or supply reservoir D is mostly placed above the level  
30 of the top of the wick tube. It has an opening *g* through its top *h* which opening is provided with a screw *i* by which it is closed or opened at pleasure. When the fountain is to be filled with oil or burning fluid, the  
35 screw *i* being first removed, the oil is poured through the opening *h*.

Through the screw *i* a tube E extends and is made to freely slide therein and with a  
40 closely packed air tight joint. This tube is open at both ends and should be of a length such as will enable a person to press the lower end of it down below the level of the top of the wick tube. The object of the said tube, the application of which to the foun-  
45 tain or supply reservoir constitutes my improvement, is to enable the oil around the wick or in the wick tube to be maintained at a constant level, which level should be that most convenient or proper for con-  
50 sumption of the oil with a steady flame and maximum quantity of light.

To fill the lamp with oil and prepare it for being lighted, first, open the stop cock  
55 *f* and remove the screw *i*. Next, pour oil through the opening *h* and into the supply reservoir D until it has attained a level cor-

responding with that of the wick tube. Next, shut or close the stop cock *f* and after-  
ward fill the supply reservoir with oil. Next, draw the tube E nearly out of the  
60 screw *i* and insert the said screw in the opening *h*. This done, put the thumb or finger on the upper end of the tube E and press upon it so as to close it air tight. This  
65 done, and while the finger so closes the tube, open the stop cock and crowd the tube E into the supply reservoir until the lower end of the tube reaches the level at which we de-  
70 sire the oil to stand in the wick tube. The surplus oil which will be displaced by pushing the tube E down into the supply reser-  
voir will flow over the top of the wick tube and pass through a tube G which leads  
75 down from a clip H (made around the wick tube) to a saving cup or reservoir I disposed under the oil holder in which the wick tube is placed. On removing the thumb from the  
80 top of the tube E, the oil in the supply chamber or reservoir will not rise in such tube, the pressure of the atmosphere preventing the same. The surface of the oil at the bot-  
85 tom of the tube forms an artificial level which exactly corresponds with that at which the oil is to stand in the burner or around the wick. This artificial level has  
the effect of a material level which would be produced by cutting off, and consequently  
90 opening the supply reservoir at the place to which the lower end of the tube E reaches. By raising the bottom of the tube higher than the top of the wick tube the oil will  
95 flow over the said top. By pushing it down deeper the level of the top of the oil in the wick tube sinks accordingly.

In the "Carcel" lamp the oil constantly  
100 flows over the top of the wick tube. My improved lamp has all the advantage of the Carcel and in a higher degree, as it enables him who uses it to raise or lower the level of the oil around the wick at pleasure. The level  
105 produced by the open tube E regulates that in the burner. The oil in the supply reservoir runs out of the same and into the burner in proportion to consumption in the latter, for the moment the top surface of the oil  
110 around the wick falls, the artificial level or surface of oil at the bottom of the tube E will fall accordingly and thereby allow a bubble of air to pass from the tube E into the oil in the supply reservoir. This bubble  
of air rises through the oil, and of course a proportional amount of oil escapes at the



same time from the reservoir into the wick tube.

Some of the advantages of my improved lamp may be thus stated. Its light remains  
5 unchangeable. It does not gradually decrease as in common lamps, the use of which, from such defect must be injurious to the eyesight. As the level of the oil around the wick does not vary, the poorest combustible  
10 oils or fatty matters may be used. The level of the oil remaining always at the base of the flame, capillary attraction of the wick is dispensed with. In the use of the lamp a great saving in oil is effected from the fact  
15 of the increase of light gained by maintaining the oil at a constant level around the wick.

I do not confine my invention to a lamp formed precisely as described, but mean to

apply it to any other form of lamp whose principle of operation is analogous to that hereinbefore explained.

What I claim as my improvement is—

The open slide tube E as combined with the supply reservoir of a lamp constructed  
25 and made to operate substantially as described, the object of such tube being not only to maintain the oil at a constant level around the wick, but to enable a person to regulate the height of such level at pleasure.  
30

In testimony whereof I have hereto set my signature, this eleventh day of February A. D. 1852.

CHARLES SIEDHOF.

Witnesses:

R. H. EDDY,  
G. W. CUTLER.