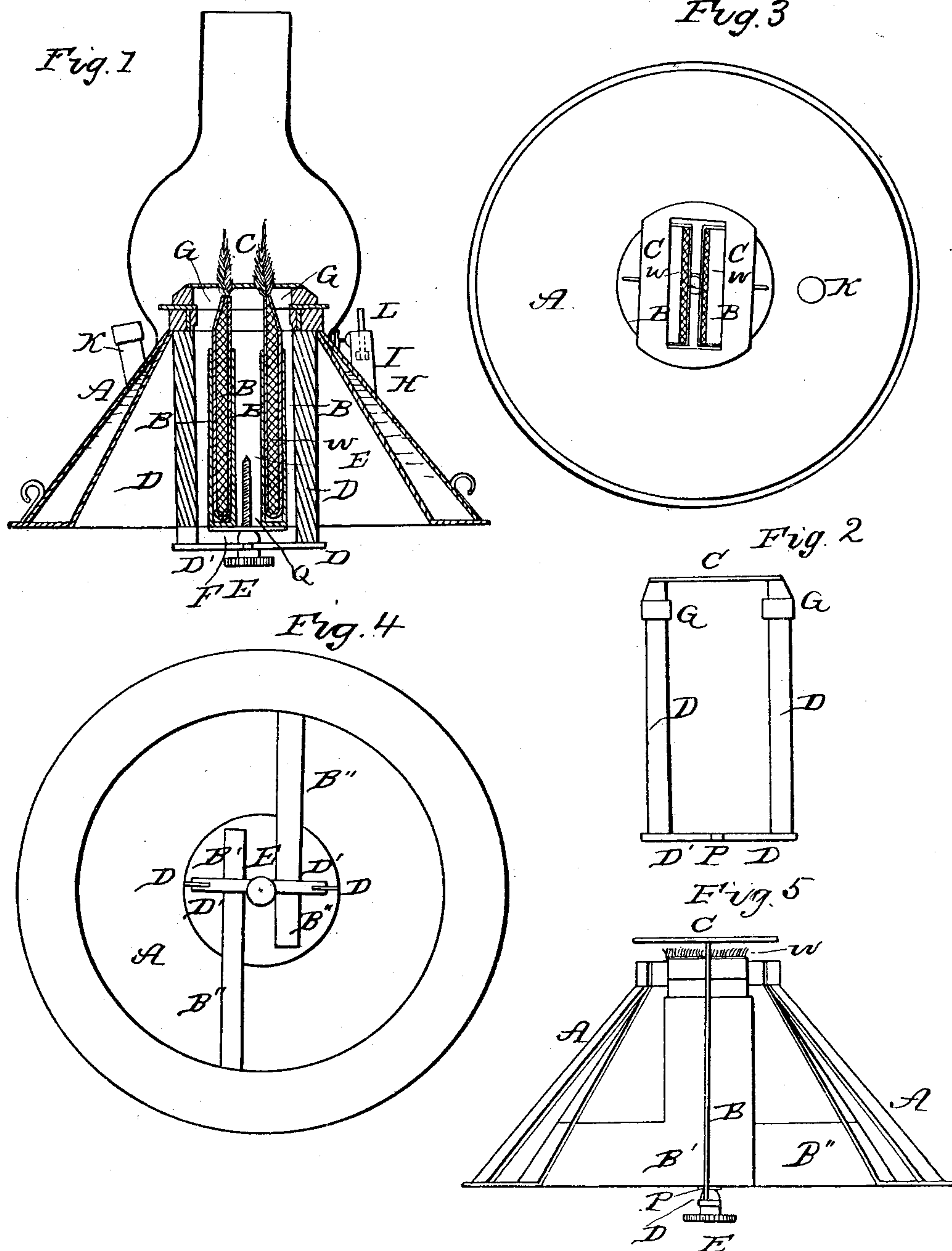


J. S. TOUGH.

Lamp.

No. 1,246.

Patented July 17, 1839.



# UNITED STATES PATENT OFFICE.

JOHN S. TOUGH, OF BALTIMORE, MARYLAND.

## REGULATING THE FLAME OF LAMPS.

Specification of Letters Patent No. 1,246, dated July 17, 1839.

*To all whom it may concern:*

Be it known that I, JOHN S. TOUGH, of the city of Baltimore and State of Maryland, have invented an Improvement in  
5 Lamps for Burning Spirits of Turpentine, Alcohol, &c., which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

10 This improvement consists in raising the horizontal plate at the mouth of the glass shade for increasing or diminishing the draft by means of a metallic frame and screw, instead of raising or lowering the  
15 shade or wicks.

Figure 1 is a vertical section at the line  $x-x$  of Fig. 3. Fig. 2 is a sectional view of the metallic frame and horizontal plate. Fig. 3 is a top view of the lamp. Fig. 4 is a view  
20 of the under side. Fig. 5 is a vertical section of the line  $o-o$  of Fig. 3.

Similar letters refer to similar parts.

The horizontal metallic plate containing the rectangular opening therein for the  
25 draft, lettered C, is made in the usual manner; but instead of placing it on the top of permanent studs fixed to the top or outside of the lamp it is attached to a vertical frame D, which rests on a collar or shoulder of a  
30 vertical milled screw E, passing through a round aperture P in the lower cross bar D of said frame and screwing into a female screw Q at the bottom of the lamp—said  
35 before described horizontal plate C being placed above the lighted ends of the wicks W by merely turning said milled screw E to the right or left will raise or lower the plate C which will increase or diminish the draft. The frame is kept in a vertical position and guided by means of parallel guides  
40 G fastened to the top of the lamp.

The wicks of this lamp are arranged in the following manner: From the bottom of

the lamp inside there extends horizontally a tube B' which turns up vertically at the  
45 center of the lamp and continues a little above the top of the lamp: into this tube B the spirit flows from the lamp and into it also is placed the wick W.—From the other side of the lamp there projects another tube  
50 B'' made and arranged in like manner to that just described and parallel with it. The cross piece F containing the female screw or nut Q may be secured to the bottom of the horizontal arms of these tubes so that  
55 the screw shall pass between them.—A tube H is fixed on the outside of the lamp communicating with the interior thereof in which the oil always stands the same height as in the lamp when more than half filled  
60 and upon which is placed a float I and index L to show the height of the oil.

The shade M is placed upon the outside of the lamp in such a manner as to cut off all communication from the light to the feed  
65 tube or from the light to any spirit that might spill over the outside of the lamp; and said shade thus placed also excludes the entrance of the air from the outside which is rendered unnecessary in this lamp as the air  
70 circulates inside at the center around the wicks on every part by their being placed in the center and detached the one from the other in the manner just described. The feed tube K is arranged in the usual manner.  
75

The invention claimed and desired to be secured by Letters Patent consists

In the mode of regulating the flame of the lamp by means of the plate C combined with the frame D for raising or lowering the  
80 same—the whole being arranged in the manner above set forth.

JOHN S. TOUGH.

Witnesses:

HENRY BAYLEY,  
JACOB DEEMS.