

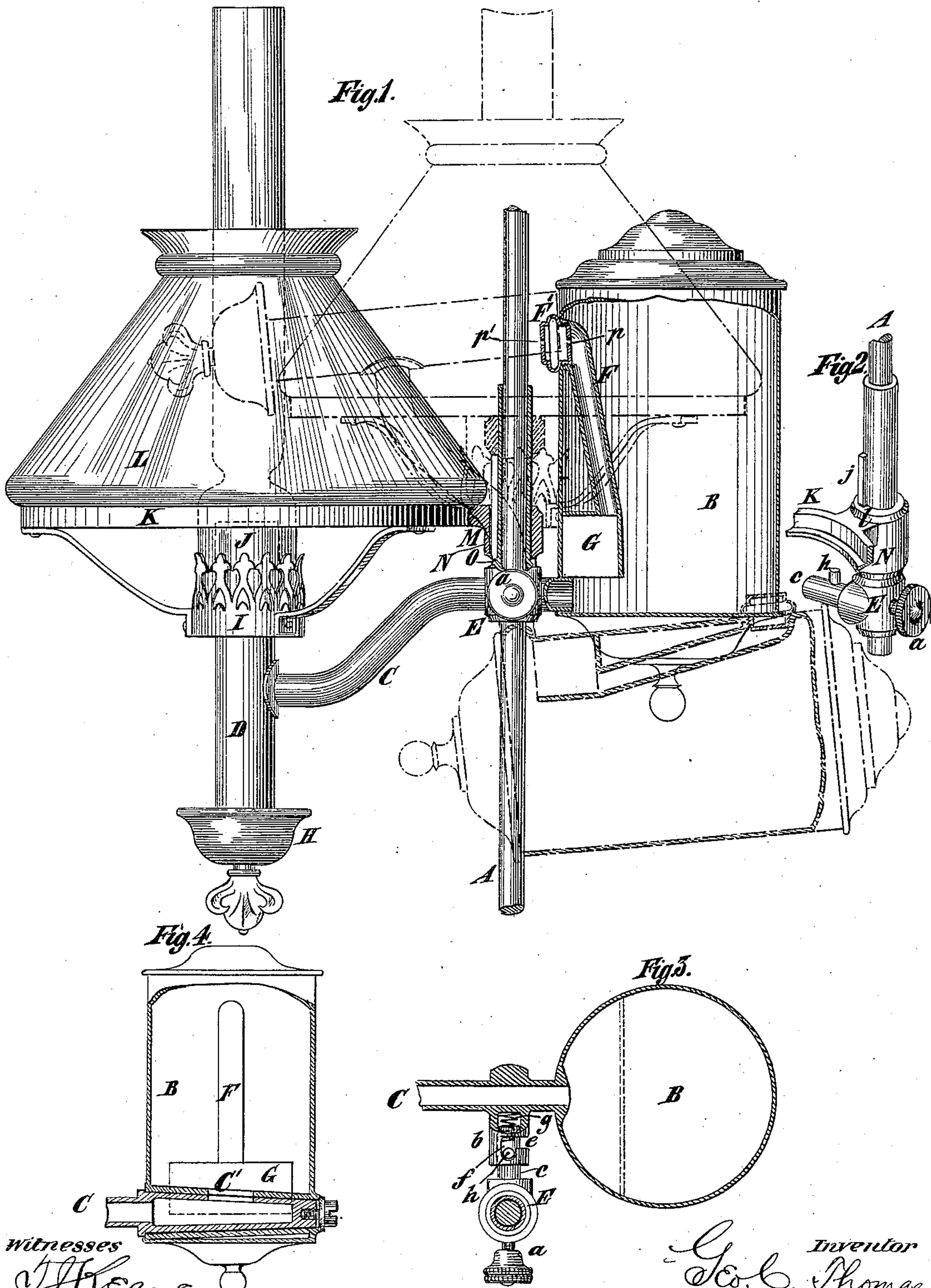
(No Model.)

2 Sheets—Sheet 1.

G. C. THOMAS.  
LAMP.

No. 309,996.

Patented Dec. 30, 1884.



Witnesses  
J. H. Kane  
James B. Bowen.

Inventor  
G. C. Thomas  
By his Atty  
Edwin H. Brown

(No Model.)

G. C. THOMAS.

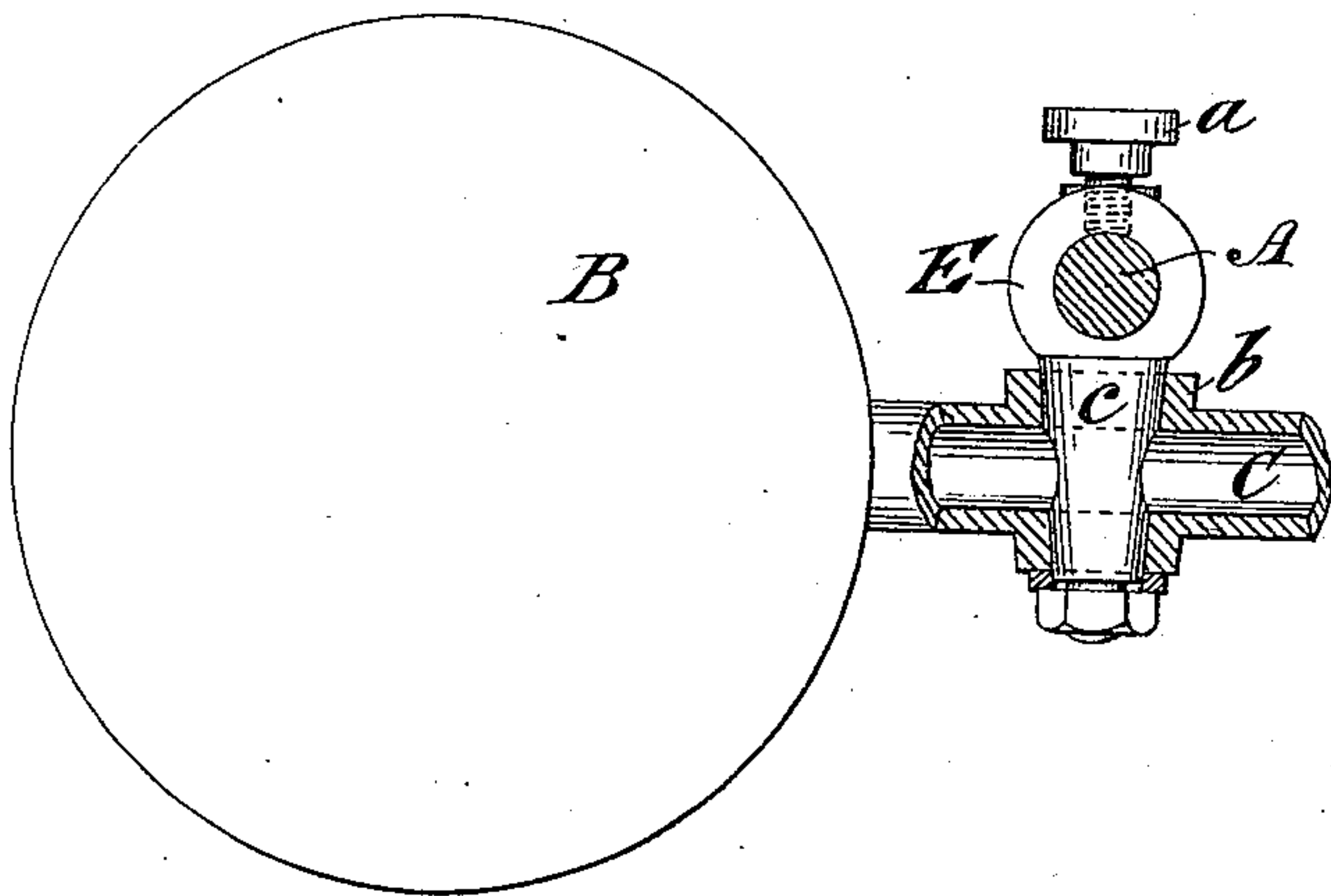
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*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

GEORGE C. THOMAS, OF WATERBURY, CONNECTICUT.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 309,996, dated December 30, 1884.

Application filed April 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE C. THOMAS, of Waterbury, in the county of New Haven and State of Connecticut, have invented a certain  
5 new and useful Improvement in Lamps, of which the following is a specification.

My improvement relates particularly to that class of lamps wherein there is an elevated reservoir from which the oil or other fluid  
10 used for illuminating flows to the burner.

My improvement consists in the combination, with a reservoir for oil or other fluid, having a delivery-opening near the bottom and a compartment arranged at the side or portion  
15 adjacent to said delivery-opening, and having its bottom open and extending down about as low as the top of the delivery-opening, of a tube extending downward from the upper portion of the reservoir into the said compartment.  
20

The improvement also consists in the combination, in a lamp, of a burner-tube, an oil or fluid reservoir connected therewith, and having a filling-tube extending downwardly into  
25 it from the upper portion, a support to which the reservoir and supply-tube are pivotally connected to enable the reservoir to be tilted for filling, and a support for the chimney-gallery and shade-holder admitting of their adjustment to shift them and the chimney and  
30 shade so that they will not be in the way of the burner-tube during the tilting of the reservoir.

In the accompanying drawings, Figure 1 is a side view of a lamp embodying my improvement, the reservoir and certain other parts  
35 being shown in section, and the base or end piece of the supporting-rod being omitted. This figure also includes dotted outlines of certain of the parts in different positions from those in which they are represented in bold  
40 outlines. Fig. 2 is a view of the supporting-rod and certain of its appurtenances. Fig. 3 is a horizontal section of the reservoir, (including a representation in dotted lines of the filling-tube and the enlarged chamber with  
45 which it communicates,) the oil or fluid supply tube, the support therefor, and means whereby it is connected to the support. Fig. 4 is a vertical section of a reservoir and supply-tube illustrating a modification of my im-

provement, and Fig. 5 is a view of a modification thereof.

Similar letters of reference designate corresponding parts in all the figures.

Referring first to Figs. 1, 2, and 3, A designates a supporting-rod which may be erected  
55 on any suitable base-piece, or may be suspended from above.

B designates the reservoir of the lamp. C designates the supply-tube, whereby oil or  
60 other fluid is conveyed from the lower end of the reservoir to the burner-tube D, wherein the wick is arranged. The supply-tube C is connected to a collar, E, which fits the rod A, and may be secured in different positions thereon  
65 by means of a set-screw, *a*. These parts may be made of the usual materials. The reservoir is shown as permanently closed, and it is provided with a filling-tube, F, which in this example of my invention extends from the upper  
70 part to the lower part. The mouth of this filling-tube extends through the side of the reservoir, and its lower end communicates with a chamber or compartment, G, of segmental form extending across the lower part of the  
75 reservoir at the side or portion at which is the delivery-opening. This chamber, as here shown, is open at the bottom, but is closed elsewhere, save where the filling-tube F enters it. The compartment or chamber G extends  
80 about as low as the top of the delivery-opening. The supply-tube C is provided with a circular socket, *b*, which extends transversely therefrom, and fits on a round stud, *c*, that projects from the collar E. The socket  
85 *b* is provided with a circumferential groove or slot, *e*, which terminates at one end in an axial extension, *f*. A spring, *g*, fitting between the stud *c* and the socket *b*, tends to force the latter outward, so as to cause the  
90 axial extension *f* of the groove to slide over a pin, *h*, which extends from the stud *c*. When this occurs the reservoir, supply-tube, and burner-tube are locked in their normal positions. When the socket *b* is pushed inward  
95 against the resistance of the spring *g*, the axial extension *f* of the groove or slot is disengaged from the pin *h*, and then the reservoir, supply-tube, and burner may be tilted so as to bring the filling-tube F of the reser-  
100



voir into an approximately horizontal position, as indicated in dotted lines in Fig. 1. When the reservoir is in this position, oil or other fluid may be poured into it through the filling-tube, the air escaping during the operation through the latter. After the parts are turned into and locked in their normal positions the oil or fluid flows down the supply-tube to take the place of that which is consumed in the wick, and air enters the reservoir to take its place through the filling-tube. The chamber G extends below the top of the burner-tube, and the pressure of air on the oil afforded by it prevents any overflow at the tip of the burner-tube. The wick may be adjusted by any suitable means, for instance, by a spiral tube rotated by the drip-cup H, and engaging with a non-rotary spiral wick-carrier. The drip-cup may be detachably connected with the said spiral tube, so as to facilitate emptying it.

I designates a chimney-gallery, and J designates a chimney supported therein.

K designates a shade-holder, and L a shade sustained by it. Both the chimney-gallery and the shade-holder are connected to an arm, M, extending from a collar, N, which fits upon a sleeve, O, extending upwardly from the collar E. This sleeve has a longitudinal feather or rib, *j*, with which engages a groove, *l*, on the collar N, so that the chimney-gallery and shade-holder will be maintained in their proper positions with the chimney-gallery over the burner-tube. By raising the collar or socket N above the feather *j* and turning it slightly around, as indicated in dotted lines in Fig. 1, it may be supported on the top of the feather with the chimney-gallery, chimney, shade-holder, and shade in positions where they will not interfere with the tilting of the reservoir, in the manner before explained.

In Fig. 4 the reservoir B, filling-tube F, and chamber G are the same as those just described, save that the latter are arranged in a vertical plane at right angles to the vertical plane in which the supply-tube C is arranged. The supply-tube is not intended to tilt, but will have the ordinary rigid connection with the collar which fits the supporting-rod. The end C' of the supply-tube is made in the form of the plug of a cock, and fits in a socket which is similar to the barrel of a cock and affixed to the reservoir. The reservoir can be rocked upon and transversely to the supply-tube, to bring the filling-tube into the proper position to receive the oil or other fluid. The end of the supply-tube and its socket may be provided with ports, so that communication between them will be cut off when the reservoir is rocked over, but so that communication between them will be established when the reservoir is adjusted to its normal position. By my invention I dispense with the ordinary reservoir which is removed for filling.

Preferably, in each modification of my improvement I apply to the outer end of the

filling-tube F a perforated plug, F', so as to prevent oil from rapidly flowing out of the tube in the event of the lamp being turned over. Such plug will be most advantageously made of sheet metal, and hollow, with small apertures *p p'*, as then, if the lamp should be turned over, the oil would have to flow through the aperture *p* into the plug, and to accumulate there considerably before passing out through the aperture *p'*. The plug may be secured in place by a screw-thread.

As there will be little chance of oil being spilled in any considerable quantity in the event of my lamp being upset, the lamp is more safe than the lamps which are in common use.

I am aware that it is old to make a non-tilting lamp-reservoir having a chamber with a closed bottom entirely across the lower end of said reservoir, and a pipe extending from the top of the reservoir through it and into the chamber, said reservoir also having on its top a vent-tube provided with a stop-cock. The advantage of my improvement over that referred to consists in that I am enabled to use a very small chamber, thereby occupying but little space in the reservoir. I avoid the use of the vent-tube and stop-cock, and the feed of oil will be more frequent and therefore more uniform.

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

1. The combination, with a reservoir for oil or other fluid, having a delivery-opening near the bottom and a compartment arranged at the side or portion adjacent to said delivery-opening, and having its bottom open and extending down about as low as the top of the delivery-opening, of a tube extending downward from the upper portion of the reservoir into said compartment, substantially as herein described.

2. The combination of a burner-tube, an oil or fluid reservoir connected therewith and having a filling-tube extending downwardly into it from the upper portion, a support to which the reservoir and supply-tube are pivotally connected to enable the reservoir to be tilted for filling, and a support for the chimney-gallery and shade-holder admitting of their adjustment to shift them and the chimney and shade out of the way of the burner-tube during the tilting of the reservoir, substantially as specified.

3. The combination of the collar E, provided with the stud *c*, having the pin *h*, the supply-tube having the socket *b*, furnished with the slot *e f*, and the spring *g*, substantially as specified.

4. The combination of the collar N, provided with the groove *l* and arm M, and the sleeve O, provided with the feather or rib *j*, substantially as specified.

GEORGE C. THOMAS.

Witnesses:

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