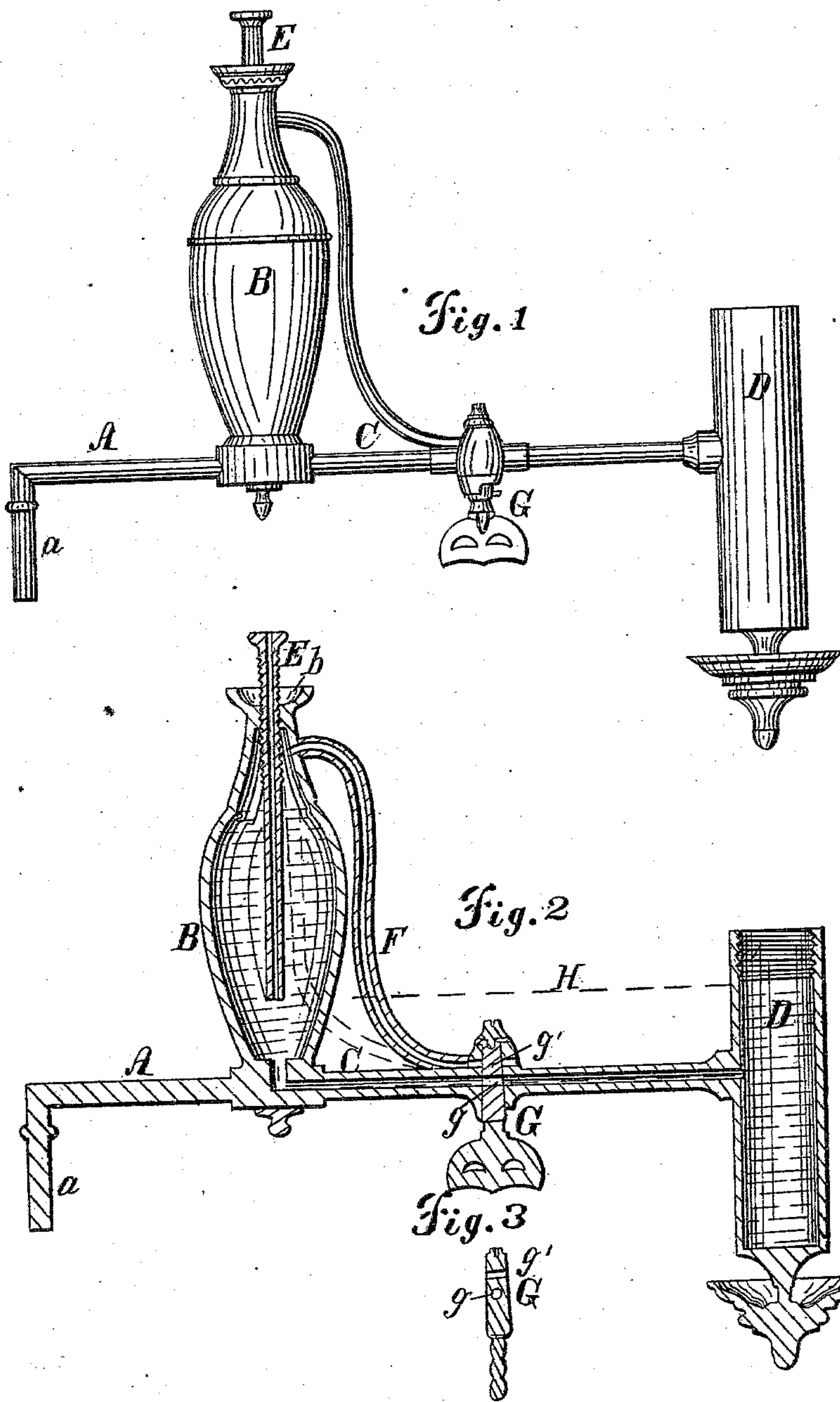


H. H. BOUCHER.

Lamp.

No. 80,705.

Patented Aug. 4, 1868.



Witnesses:

Louis Brothar  
Jacob Koenig

*Inventor:*

H. H. Boucher  
by Dedrick & Co  
Attys



# United States Patent Office.

HENRY H. BOUCHER, OF DOYLESTOWN, PENNSYLVANIA.

Letters Patent No. 80,705, dated August 4, 1868.

## IMPROVEMENT IN LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY H. BOUCHER, of the borough of Doylestown, county of Bucks, and State of Pennsylvania, have invented a new and useful Improvement in Lamps; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation.

Figure 2 a vertical section of my lamp.

Figure 3, a central section of the cock, seen in figs. 1 and 2, turned at right angles.

The nature of my invention consists in providing a lamp with a reservoir and adjustable regulator, for the supply of oil, and also with a safety-attachment, to remove any gas which may be generated in the closed reservoir, and which, by its easily-provoked expansibility, might otherwise be the cause of danger or ineffective operation of the lamp.

By providing the upper end of my tube-regulator with a funnel, I am able to fill the reservoir through it, without being obliged to remove it, and this I propose to do when it may be desirable.

In the drawings, A represents an arm, with a vertical pivot, *a*, which may be supported by a bracket or lamp-stand, or any other suitable means. This arm A has a reservoir, B, fastened to it, the bottom of which opens into a pipe or conduit, C. At the end of this pipe is the lamp D.

Between the reservoir and the lamp, the pipe C is provided with a cock, G, to open or close the communication between B and D.

A tube, F, opening into the reservoir, near the top of it, can also be opened or shut by the cock G, and serves the purpose of removing any superfluous gas from the reservoir. I would, in some cases, prefer to introduce the tube F near the bottom of B, and let it extend upward inside nearly to the top, as the red lines indicate. It would not alter the operation, and preserves the symmetry and beauty of a good design.

The cock G, and its vents *g* and *g'*, are so arranged that, in a position as represented in fig. 2, *g* is open and *g'* is shut. An eighth of a turn would close *g* without opening *g'*; one-quarter of a turn would close *g* and open *g'*.

The tube-regulator E may be so constructed as to allow a funnel to fit on its top part, or the tube and funnel may be one piece.

The lamp-body D is provided with inward screw-threads *d*, near its top, for the purpose of fastening a wick-tube, burner, &c., to it, to complete the lamp.

The operation of my lamp is as follows:

The tube E is open at both ends, and its position determines the level of the oil in the lamp D. By elevating or lowering the tube E from the position in which it is represented, the level of the oil may be changed from the line H accordingly.

The cock being in the position as seen in fig. 2, with *g* open, the filling is commenced. As soon as the fluid reaches the lower end of the tube E, the air above that level, enclosed in B, would resist any further rise of the fluid inside the reservoir; therefore I give the cock a quarter turn, which closes *g* but opens *g'*, and fill again, until there is no more air expelled through *g'*. I then turn the cock G again to the position represented in fig. 2, and the lamp is ready for use.

It is evident that the level of the fluid in the lamp D and the lower end of the tube-regulator are always the same, as long as the supply is sufficient.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a lamp, and a separate oil-reservoir communicating therewith, of the tubular level-regulator E, two-way cock G, and tube F, arranged and operating substantially as described.

2. The tube F, in combination with an oil-reservoir and an escape-cock, substantially as described.

To the above I have signed my name, this eighteenth day of May, 1868.

HENRY H. BOUCHER.

Witnesses:

WM. A. WIEDERSHEIM,

H. HYNEMAN.