

No. 815,215.

PATENTED MAR. 13, 1906.

J. E. RICHARDSON.  
LAMP EXTINGUISHER.

APPLICATION FILED MAY 22, 1905.

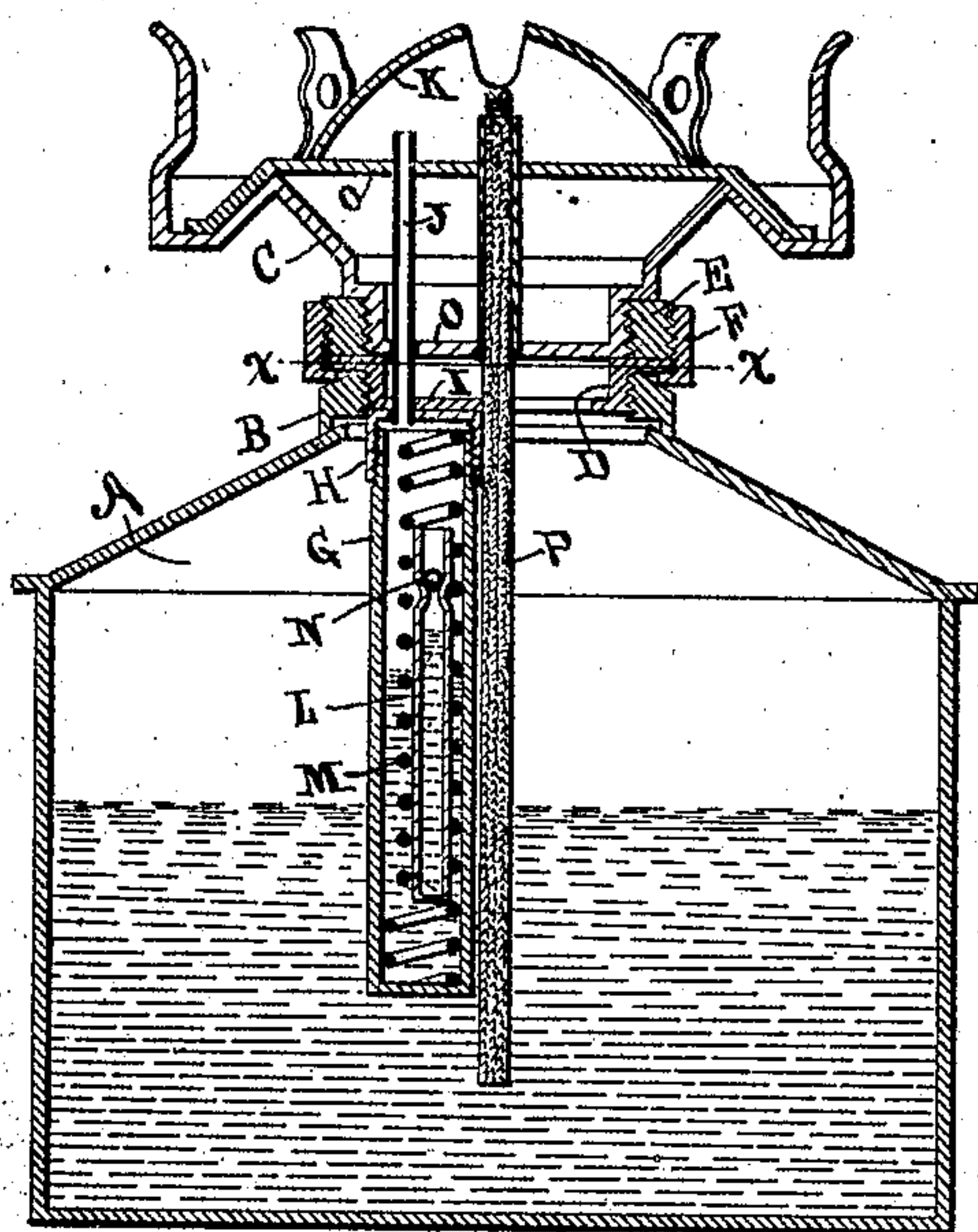


Fig. 1

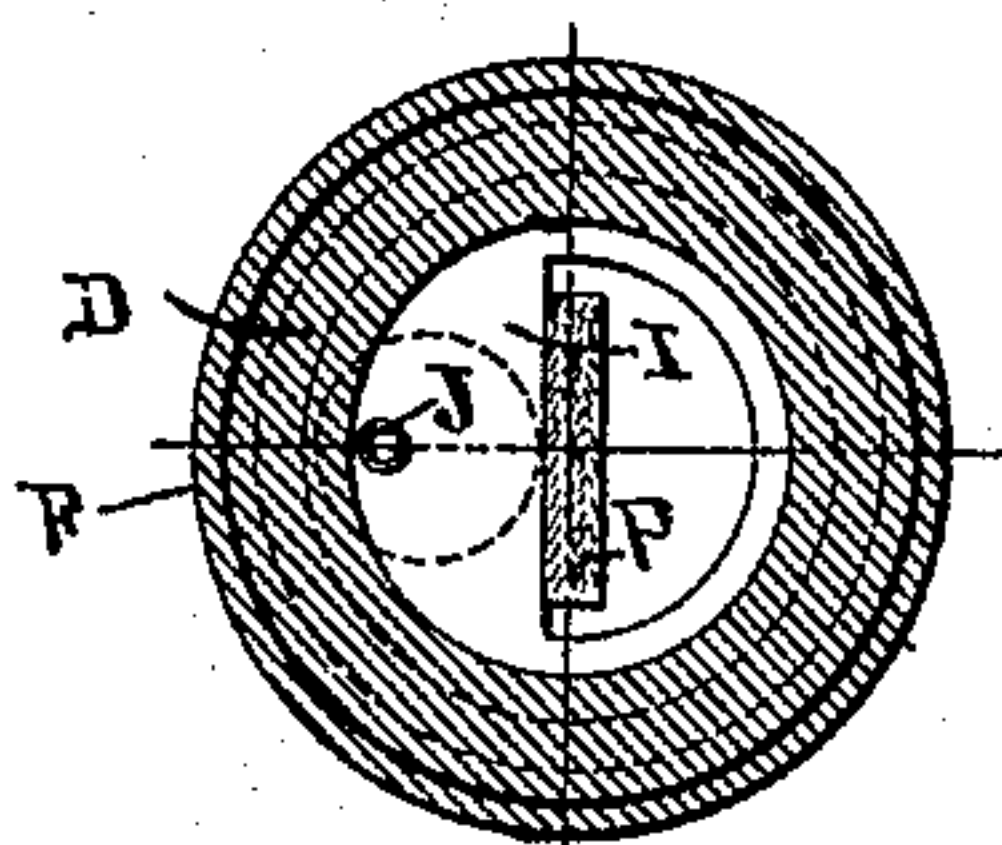


Fig. 2.

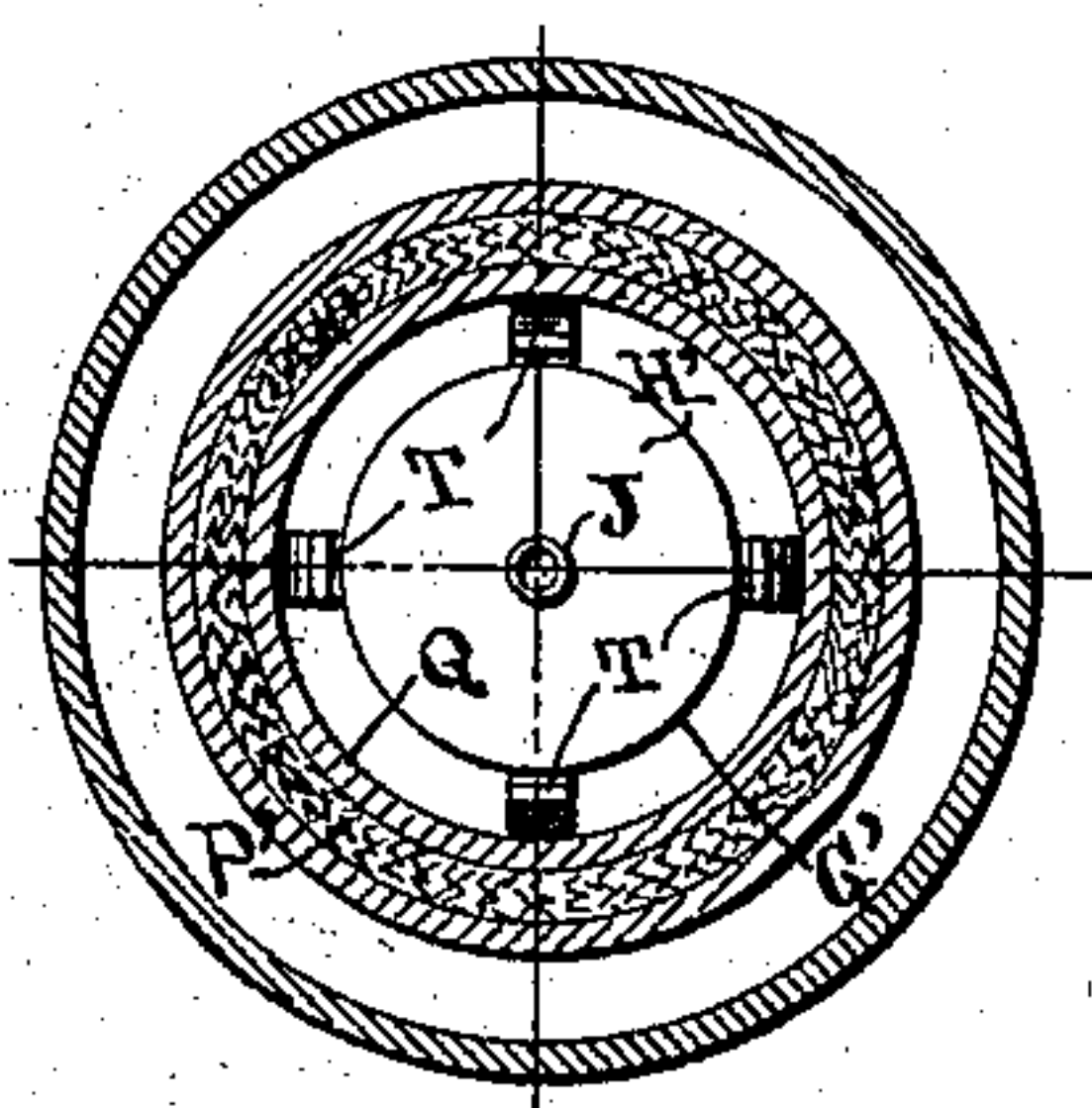


Fig. 4.

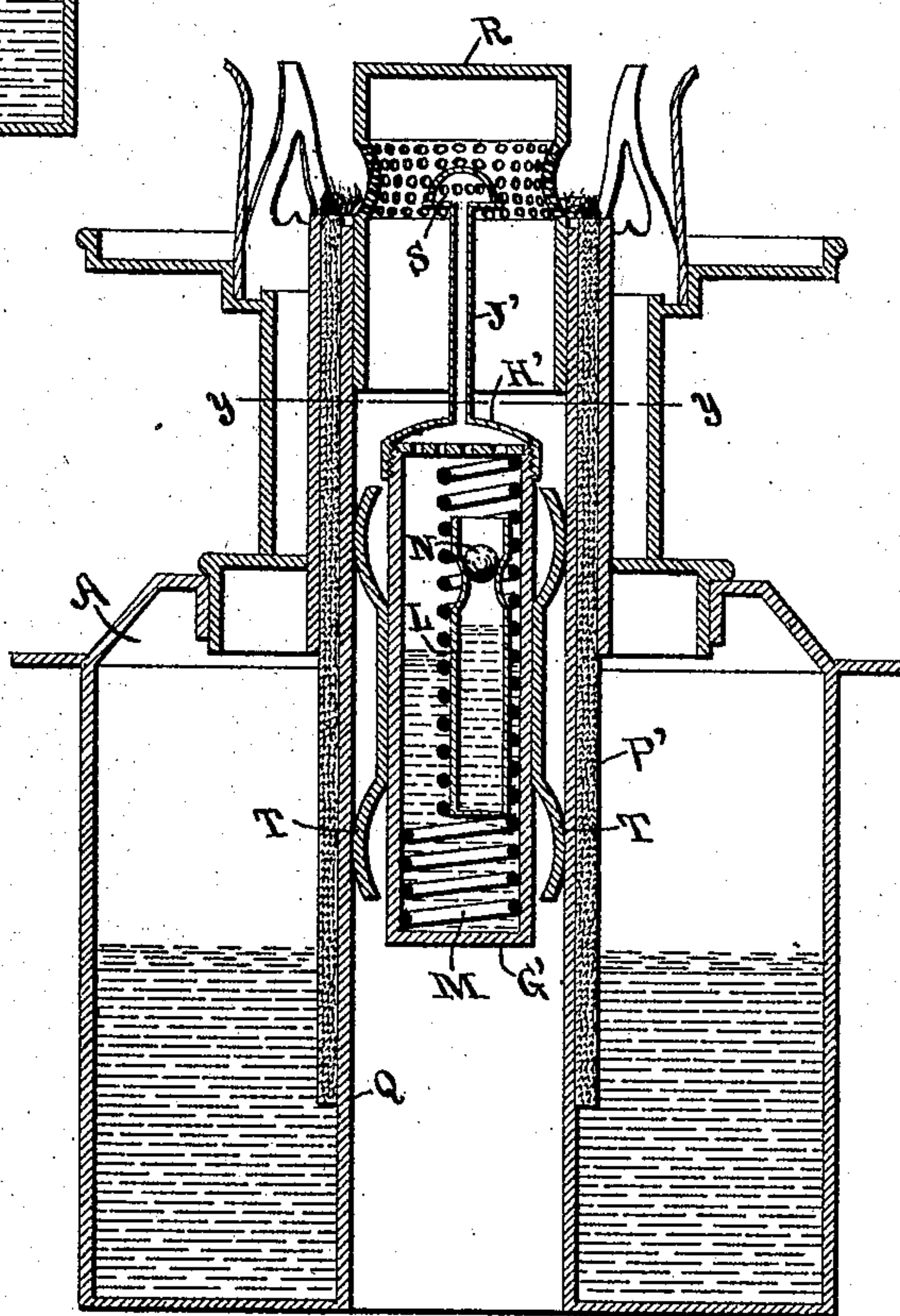


Fig. 3.

WITNESSES

*Alvin*  
*M. E. Verbeck.*

INVENTOR

*John E. Richardson*  
BY  
*Eugene Diven*  
ATTORNEY



# UNITED STATES PATENT OFFICE.

JOHN E. RICHARDSON, OF ELMIRA HEIGHTS, NEW YORK.

## LAMP-EXTINGUISHER.

No. 815,215.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed May 22, 1905. Serial No. 261 507.

*To all whom it may concern:*

Be it known that I, JOHN E. RICHARDSON, a citizen of the United States, residing at Elmira Heights, in the county of Chemung and State of New York, have invented a new and useful Lamp-Extinguisher, of which the following is a specification.

This invention relates to improvements in extinguishers for lamps which burn kerosene-oil and the like; and the object of my invention is to provide a device whereby in the event of a lamp being upset a stream of water will be sprayed into the flame of the wick to extinguish it before the oil in the lamp can run out and become ignited.

I attain my object by means of the device herein described and by applying it to a lamp in the manner illustrated in the accompanying drawings, in which—

Figure 1 represents a vertical section through a lamp in which a flat wick is used with my extinguisher applied thereto; Fig. 2, a horizontal cross-section of the same on the line  $xx$ ; Fig. 3, a sectional view of a lamp having a cylindrical wick and a central air-supply tube, showing the manner of applying my extinguisher device thereto; and Fig. 4, a horizontal section on the line  $yy$  in Fig. 3.

Like letters of reference designate like parts in the several views.

Referring first to Fig. 1, A represents the reservoir of the lamp, and B the screw-threaded collar into which the burner C is usually screwed. In applying my extinguisher device to this type of lamp I remove the burner and insert in the collar B a disk D, provided with an outturned flange at the top. Upon the burner I attach a screw-threaded bushing E in order that the burner may be drawn down upon the flange of the disk D without rotating the burner by means of the swiveled nut F. The disk D is cut out to permit of the passage therethrough of the wick P, and to the solid portion I of this disk is attached a screw-cap H, into which the upper end of a cylindrical receptacle G is screwed. Within this receptacle is a vial L, preferably of glass, which is supported in a fixed upright position by means of a coil of spring-wire M. The upper end of this vial is constricted and closed by a ball-valve N of material which will not be attacked by acid contained in the vial. From the top of the receptacle G a tube J extends through holes provided therefor in the diaphragms O at the bottom and

top of the burner to a point adjacent the top of the burner and below the burner-cap K.

The receptacle G will be partially filled with water or other fire-extinguishing liquid, and the vial will be filled with sulfuric acid or any other liquid which when mixed with the liquid in receptacle G will generate a gas-pressure sufficient to force the liquid out from the receptacle through the tube J. Should the lamp be upset or turned upon its side sufficiently to permit the oil to run out through the burner, the contents of the vial will at the same time flow into the receptacle G and upon admixture with the liquid therein drive the liquid out through the tube J, causing it to strike upon the cap K and spray into the flame of the lamp, thereby extinguishing the flame before the oil from the reservoir can reach it. The valve N seals the mouth of the vial against the ingress of air or liquid, but opens freely when the lamp is tilted over to permit the escape of the contents of the vial.

By arranging the extinguisher device as above described it may be sold separately and applied to lamps of this character in general use, or the device may be applied in other ways to specially-constructed lamp-burners.

To apply my extinguisher device to central-draft lamps, such as illustrated in Fig. 3, I provide the receptacle G' with springs T, attached to the sides thereof, said springs being adapted to grip the inner walls of the draft-tube Q with sufficient force to hold the receptacle firmly in place therein. The cap H' of the receptacle is provided with the tube J', at the top of which is a spray-nozzle S, the receptacle G being so positioned in the draft-tube that the nozzle will stand within the perforated zone of the cap R. Should this lamp become upset, the liquid driven through the nozzle S will be sprayed through the perforations in the cap R in all directions and will extinguish the flame at the top of the wick P'.

While I have described my extinguisher as applied to lamps, I wish it understood that I intend to include within said term also lamps such as are used in oil-stoves and the like and which have reservoirs supplied with either the flat wick or the central-draft burner, as above described.

Without limiting myself to the specific construction of the device or manner of applying it as described herein, what I claim



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

1. In combination with a lamp, an extinguisher comprising a receptacle containing  
5 separate compartments communicating with one another at the upper end and containing fire-extinguishing and gas-producing liquids respectively, and means for conveying liquid  
10 from the receptacle to the flame in the burner when the two liquids become mixed by the overturning of the lamp:

2. In combination with a lamp, an extinguisher comprising a liquid-receptacle, an  
15 open-ended vial to contain a gas-producing liquid inserted within said receptacle, a duct leading from the receptacle to the burner, and means for delivering the liquid from said duct to the flame in the burner should the lamp be overturned.

20 3. A lamp-extinguisher comprising a liquid-receptacle, means for attaching said receptacle to a lamp below the burner, a duct leading from the receptacle to a point adjacent the top of the wick, a vial containing  
25 a gas-producing liquid inserted in the receptacle, and means for delivering the liquid from said vial to the liquid in the receptacle should the lamp be overturned.

4. A lamp-extinguisher comprising a receptacle having two intercommunicating  
30 compartments containing a liquid and a gas-producing substance respectively, a tube projecting from the top of said receptacle, and means for attaching the receptacle within the reservoir below the burner with the  
35 tube in position to deliver the contents of the receptacle into the flame in the burner should the lamp be overturned.

5. The combination, with the reservoir of a lamp having a central draft-tube therein,  
40 of a receptacle having two intercommunicating compartments containing a liquid and a gas-producing substance respectively, a tube projecting from the top of said receptacle, and means for securing the receptacle within  
45 the draft-tube with the tube from the receptacle in position to deliver the contents thereof into the flame of the burner should the lamp be overturned.

In testimony whereof I have affixed my  
50 signature in presence of two witnesses.

JOHN E. RICHARDSON.

Witnesses:

JAMES H. O'BRIEN,  
M. E. VERBECK.