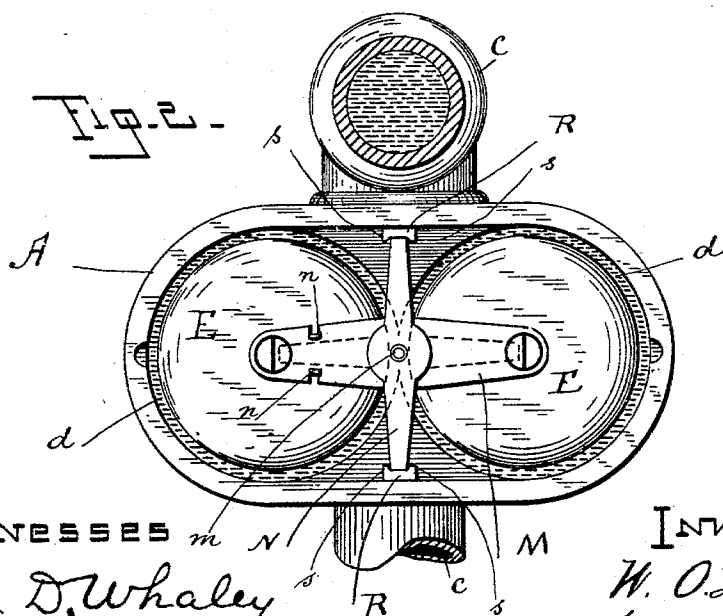
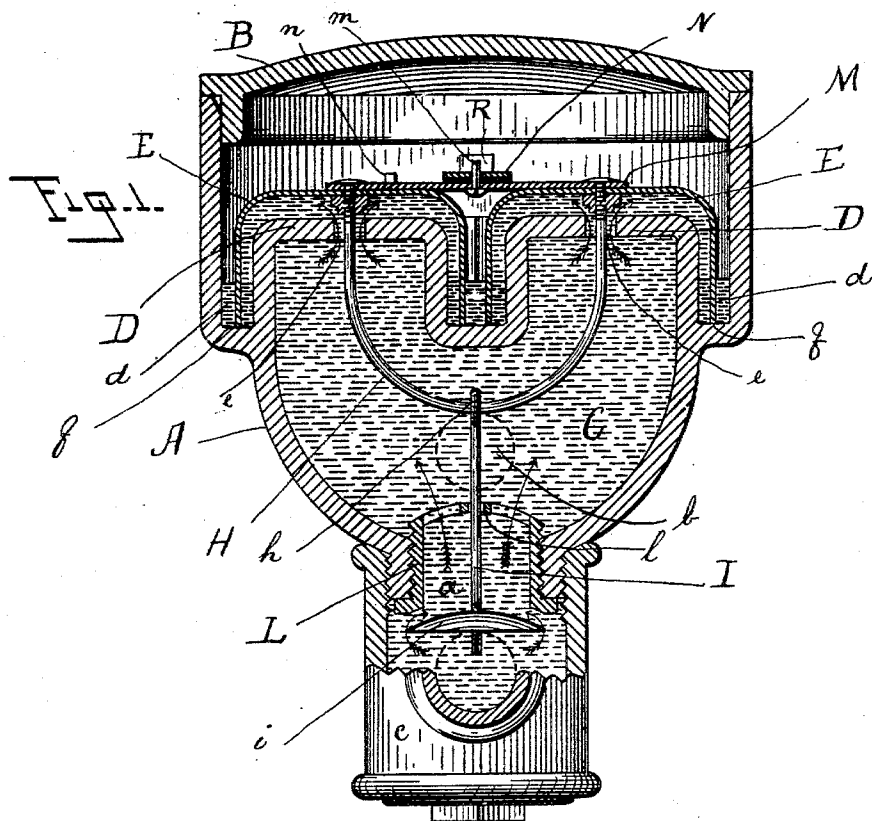


(No Model.)

W. O. LUDOVICI.
FLUID PRESSURE REGULATOR.

No. 566,775.

Patented Sept. 1, 1896.



Witnesses

John D. Whaley
Jacob Corinson

Inventor

W. O. Ludovici
per A. S. Paré
ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM O. LUDOVICI, OF SAN FRANCISCO, CALIFORNIA.

FLUID-PRESSURE REGULATOR.

SPECIFICATION forming part of Letters Patent No. 566,775, dated September 1, 1896.

Application filed April 14, 1894. Renewed March 17, 1896. Serial No. 533,633. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM OSCAR LUDOVICI, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in Gas-Controlling Machines; and I do hereby declare that the following is a full, clear, and exact description of said invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in gas-controlling machines, and the object is to produce a simple and convenient device for locking the floats, and thereby making the machine inoperative when it is desired to make tests or otherwise demonstrate its practicability without going to the expense and trouble of disconnecting the machine from the gas-pipes.

To this end my invention consists in providing the floats of gas-controlling machines with a metallic or other plate secured in such manner that it forms part thereof, as herein-after more fully described.

Referring to the accompanying drawings, forming part of this application, Figure 1 is a vertical section of a gas-controlling machine containing my improvement. Fig. 2 is a top view of Fig. 1 with its cover removed.

Similar letters of reference are used to denote corresponding parts throughout the entire specification and both views of the drawings.

Let A represent the body, and B its cover; C, the inner chamber formed therein and provided with the usual inlet *a* and outlet *b*, through which the gas passes in and out of the chamber. *cc* are fittings to connect the inlet and outlet to the gas-pipes.

Projecting upwardly from chamber C are two horizontal diaphragms D D, provided with central apertures *ee*.

Surrounding the outer wall of said diaphragms and the inner wall of body A are circular troughs or receptacles *dd*, in which the sealing fluid is poured. Between the receptacles suitable communication must be established to allow the fluid to circulate from one receptacle to the other, thus keeping the same quantity of liquid in each.

Immediately above the diaphragms are the

cup-shaped floats E E, having their edges *f* dipping in the sealing fluid contained in the receptacles and form a seal at this point. H is a semicircle wire, bent within the chamber and passes through the eyelet *h* of the valve-stem I, the ends of which extend through the apertures *ee* of the diaphragms and are secured to the middle of the floats by means of threaded sections and an intercepting double nut, thus uniting the floats together and at the same time holding the valve-stem centrally within the chamber. *i* is an adjustable valve secured at the lower end of the stem.

The valve-stem held in the manner described will keep always its perpendicular position, no matter how much vibration or oscillation the floats are subject to while in operation.

The bushing L is made adjustable to the inlet *a* and can be replaced for the purpose of reducing or increasing the area of said inlet, and serve also as a valve-seat. *l* is a guide for the valve-stem, preferably cast integral with the upper part of the bushing.

Attached to the upper part of the floats is a metallic plate M, intended to bind them together, and to form at the same time a support for the stopping-plate N. This stopping-plate is held to the middle of the plate M by means of pin *m*, and two projections *nn* punched out from the side of the metallic plate M to prevent the stopping-plate from shifting out while the floats are in operation.

If desired to stop the movements of the floats, the stopping-plate is released from projections *nn* and turned at right angle from plate M. Then the ends are forced downwardly beneath shoulders R, cast with the inner wall of body A, thus stopping altogether the movements of the floats.

The shoulders are provided with prongs *ss*, extending downwardly each side of the stopping-plate, to prevent it from shifting out of place. Thus I provide a simple and ever ready means to stop the operation of the machine when desired.

It will be readily seen that my invention can be used as well with gas-controlling machines having only one float. Therefore I do not wish to confine myself to the herein-described machine.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

5 1. In a gas-controlling machine, the combination with a shell having inlet and outlet passages, of a valve controlling the passages, a partition in the shell having liquid-receptacles therein, floats resting in the liquid-receptacles, a connection between the floats
10 and valve, a plate M connecting the floats, a stopping-plate centrally pivoted to the plate M, and shoulders on the inner face of the shell with which the stopping-plate is adapted to engage, substantially as described.

15 2. In a gas-controlling machine, the combination with a shell having inlet and outlet passages, of a valve controlling the passages, a partition in the shell having liquid-receptacles, floats resting in the liquid-receptacles,
20 a connection between the floats and valve, a plate M connecting the floats, a stopping-plate centrally pivoted to the plate M, projections on the plate M for locking the stopping-plate in its inoperative position, shoulders
25 on the inner face of the shell with which

the stopping-plate is adapted to engage, and prongs or projections on the shoulders for locking the stopping-plate in its engaged position, substantially as described.

3. The herein-described gas-controlling machine consisting of a shell having an inner chamber formed therein and provided with inlet and outlet, two projecting diaphragms having central aperture, receptacles surrounding said diaphragms, a cup-shaped float placed above said diaphragms and having its edge projecting downwardly into the receptacles, a semicircle wire secured to the floats and passing through the diaphragms and connected to the valve-stem, an adjustable valve secured to the lower end of said stem and adapted to close the inlet, and a cover secured to upper part of the shell, all of which as set forth.

In witness whereof I have hereunto set my hand and affixed my seal.

W. O. LUDOVICI. [L. s.]

In presence of—

M. ROSENFELD,

JOHN D. WHALEY.