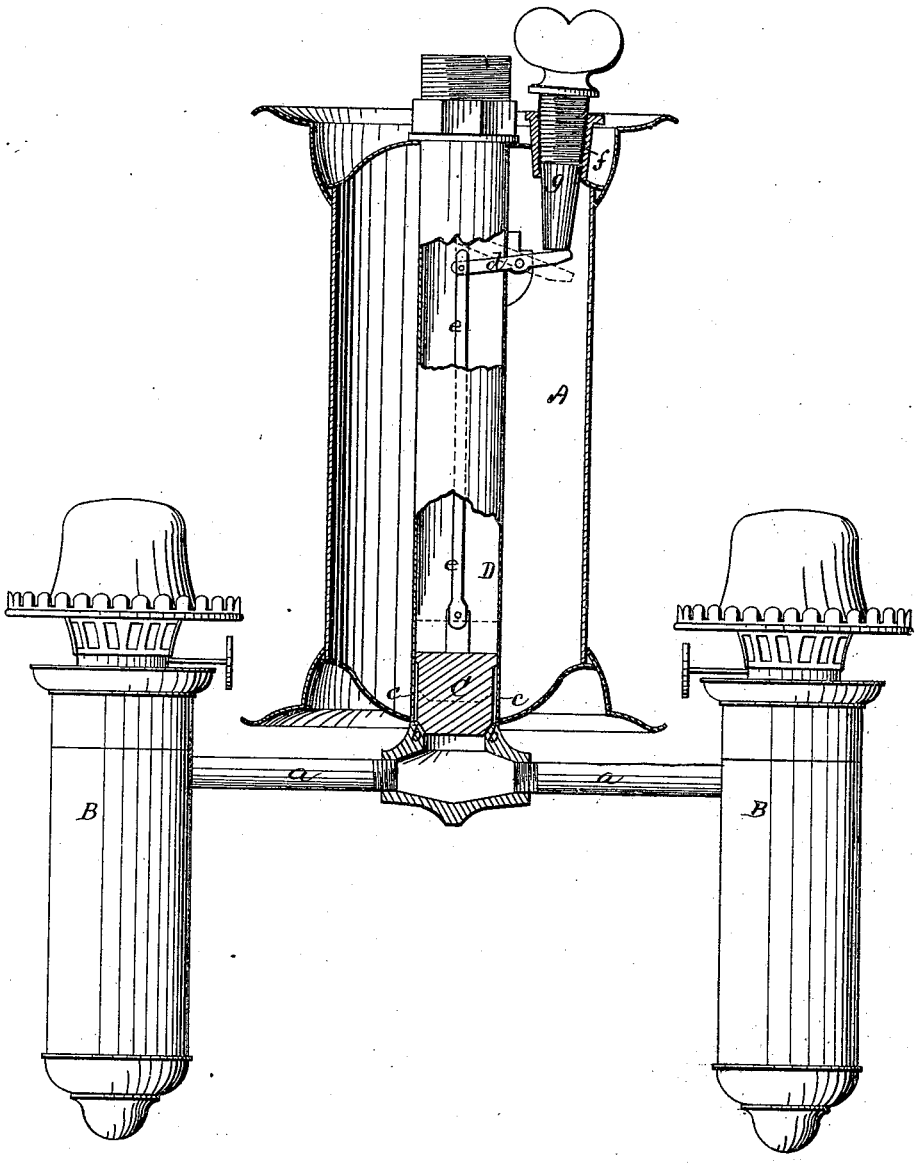
D. WHITEFORD.

LAMP..

No. 188,998. Patented March 27, 1877.



Witnesses:

Everett A. Buck

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Inventor:

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UNITED STATES PATENT OFFICE.

DAVID WHITEFORD, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **188,998**, dated March 27, 1877; application filed April 8, 1876.

To all whom it may concern:

Be it known that I, DAVID WHITEFORD, of Chicago, Illinois, have invented certain new and useful Improvements in Lamps, of which the following is a specification:

My invention relates to what are ordinarily termed "atmospheric lamps," combining a burner and wick-holder with a sealed elevated reservoir, from which oil is fed to the holder and burner in proportion as it is consumed.

My object is to produce a lamp of this kind in which the oil-reservoir may be filled or replenished at any time with entire ease, and without danger of overflow or explosion.

To this end I combine with the oil-reservoir and the burner an intermediate valve, connected with and operated by the plug or stopper of the oil-vessel, in the manner hereinafter described, whereby the removal of the stopper allows the valve to automatically drop and close the passage between the burner and oil-reservoir, and the insertion of the stopper operates positively the valve to open said passage. Thus, so long as the filling-orifice is closed the valve is open, and the instant it is opened to admission of air the valve is closed, thus preventing all danger of overflow.

The nature of my invention, and the manner in which the same is or may be carried into effect, will be understood by reference to the accompanying drawing, which represents an elevation, partly in section, of a lamp embodying my improvements.

A is the oil fount or reservoir, and B are the wick or oil holders and burners, connected therewith by intermediary ducts or tubes *a*. These parts are combined in the manner usual in atmospheric lamps, and require no further description.

The regulating-valve, hereinbefore referred to, is shown at C. It has its seat *b* in the bottom of the oil-fount, and controls the flow of the oil therefrom to all the branch tubes *a*. The valve is guided and arranged to move vertically in a tubular bearing piece, D, which extends from the top to bottom of the fount A, and has formed in its lower end apertures *c*, to allow oil from the reservoir to enter the branch tubes. Pivoted on a bracket on the upper part of the bearing-tube D is a lever, *d*, whose inner end enters the interior of the bearing-tube, and is connected to the valve by a rod, *e*, jointed at one end to the valve-stem, and at the other end to the lever. If the outer end of the lever be depressed, the valve will be lifted from its seat. If, then, this end of the lever be released from pressure, the valve, which is made heavy and solid, will, by its weight, drop and return to its seat.

To utilize this arrangement for my purposes, I locate the filling-orifice *f* of the reservoir over the outer end of the lever, and lengthen the screw plug or stopper *g*, so that when entered far enough to close tightly the filling-orifice, its lower end will bear upon and depress the lever, and thus open the valve.

When, on the other hand, the plug is withdrawn for any purpose, the pressure on the lever will be removed, and the valve will at once return to its seat, and thus seal the oil-reservoir.

I have shown, in illustration of my invention, a screw plug or stopper, which enters a correspondingly-threaded filling-orifice. The plug, however, may be plain instead of screw-threaded; or, in lieu of a plug, a cap or any other suitable cover or closing device may be employed, provided it has a stem or projection, which, when the device is in position to close the filling-orifice, will depress the lever. Intermediaries between the plug or stopper and the valve may also be otherwise arranged.

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

1. The described combination, in the oil-fount, of the regulating-valve, the stopper, or its equivalent, for closing the filling-orifice, and intermediaries, substantially such as set forth, between the said valve or stopper, whereby the valve is positively lifted from its seat by the stopper when the latter closes the filling-orifice, and is released and allowed to drop by its weight into its seat when the stopper is removed to open the filling-orifice.

2. The oil fount or reservoir and the valve,

in combination with elongated stopper, or its equivalent, the vibratory lever, and the jointed rod connecting the lever and the valve, for joint operation, as set forth.

3. The combination, in the oil-reservoir, of the valve, the bearing-tube, the lever and connecting-rod, and the elongated stopper, or its equivalent, substantially as set forth.

In testimony whereof I have hereunto signed my name this 3d day of April, A. D. 1876.

DAVID WHITEFORD,

Witnesses:
SAMUEL J. HARMAN,
WM. FRIES.