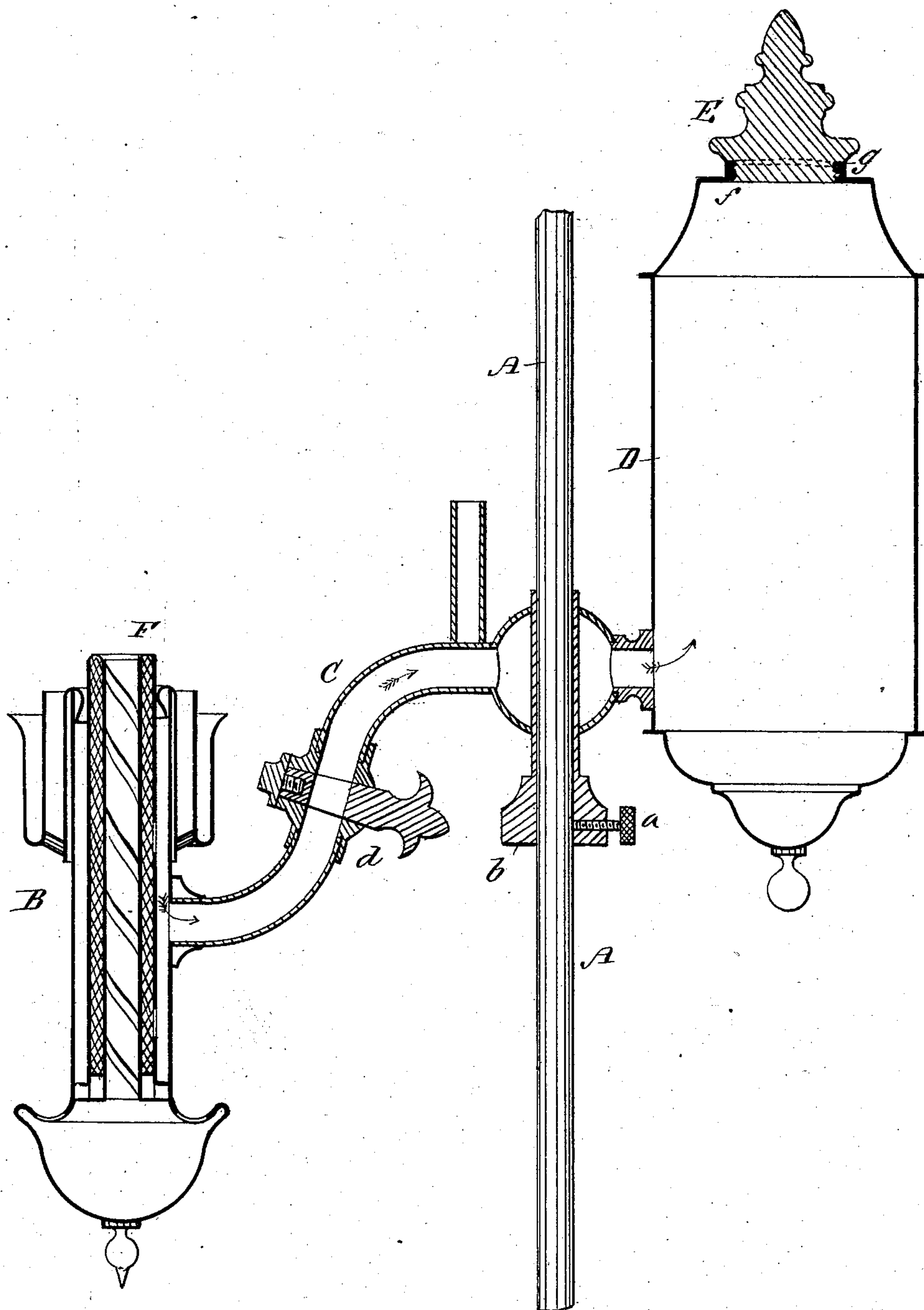


(No Model.)

W. R. FLEMING.
LAMP.

No. 259,122.

Patented June 6, 1882.



WITNESSES :

WITNESSES:
 Geo. G. Hoston
 C. Seagrick

INVENTOR:

INVENTOR:
W. R. Fleming
BY *Moran Ho*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM R. FLEMING, OF BELVIDERE, ASSIGNOR TO JAMES H. FLEMING,
OF NEWARK, NEW JERSEY.

LAMP.

SPECIFICATION forming part of Letters Patent No. 259,122, dated June 6, 1882.

Application filed March 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FLEMING, of Belvidere, in the county of Warren and State of New Jersey, have invented a new and useful Improvement in Lamps, of which the following is a full, clear, and exact description.

My invention relates to that class of lamps commonly known as "German student" or "Argand" lamps—that class which have elevated reservoirs for holding the oil; and my invention consists in dispensing with the removable reservoir or filling-cup commonly used, and making the ordinary outer casing, which, in the ordinary construction, holds the filling-cup, the main oil-holding reservoir, and in making this main reservoir air-tight, whereby the oil surrounding the wick will be maintained constantly at the same level, thus overcoming the objection of "flushing" the light, and whereby the body of oil in the lamp is kept from igniting in case the lamp should be upset.

Reference is to be had to the accompanying drawing, in which the figure E represents a central sectional elevation of a German student or Argand lamp made in accordance with my invention. The lamp is held upon the standard A in the ordinary manner by means of the set-screw *a*, passing through the sleeve *b* and the burner-tube B. The inner wick-holder, F, and the tube C, leading from the main oil-reservoir D, are also of the ordinary construction, except that the tube C is provided with the cock *d*, as shown. The reservoir D is closed by the screw-plug E, which fits in the screw-threaded opening *f* at the top of the reservoir, the washer *g*, of rubber, being by preference placed upon the plug for making the reservoir air-tight.

In filling the reservoir D the cock *d* is first to be turned so as to close the tube C. The plug E is then to be removed and the lamp filled. The plug E is then to be screwed back to place, which will close the reservoir perfectly air-tight, so that when the cock *d* is turned to open the tube C the oil from the reservoir will fill the burner-tube B up to a point a little above the entrance to the tube B of the tube

C, and the oil will be constantly maintained at that level, without reference to the quantity of oil in the main reservoir, by the pressure of the atmosphere upon the surface of the oil in the tube B, and any shaking or movement of the lamp will not raise or change this level, thus effectually preventing all danger of a sudden flow of oil to the light. As the oil is drawn up from the burner-tube B by the capillary attraction of the wick and consumed, the level of the oil in the reservoir will be gradually lowered until the vacuum thus formed in the reservoir balances the pressure of the atmosphere in the burner-tube, which equilibrium will continue until the oil in the burner-tube is lowered so as to uncover the entrance of the tube C in the burner-tube, when a bubble of air will force its way up the tube C, as indicated by the arrow, to fill the vacuum in the reservoir, thus allowing the further admission of oil from the reservoir to the burner-tube. By this means it will be seen that the supply of oil to the burner-tube will always be maintained at the same level, which causes better combustion of the oil and prevents all smell from the lamp; and should the lamp be upset the oil in the reservoir cannot escape to become ignited from the burner; and also it will be seen that the lamp is very simple in its construction, and by means of the cock *d* the lamp may be filled without extinguishing the lamp, if desired.

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

The combination, with a tube, B, closed at the bottom, open at the top, surrounding the wick-tube, and connected with said tube near the bottom, of a superposed air-tight oil-reservoir, D, having the removable top plug, E, and connected with the tube B above its communication with the wick-tube by a tube, C, having the cock *d*, whereby the oil may be automatically fed from the reservoir and kept at a uniform height in the tube B, as described.

WM. R. FLEMING.

Witnesses:

JOHN H. MEEKER,
PHILIP N. CROSS.