

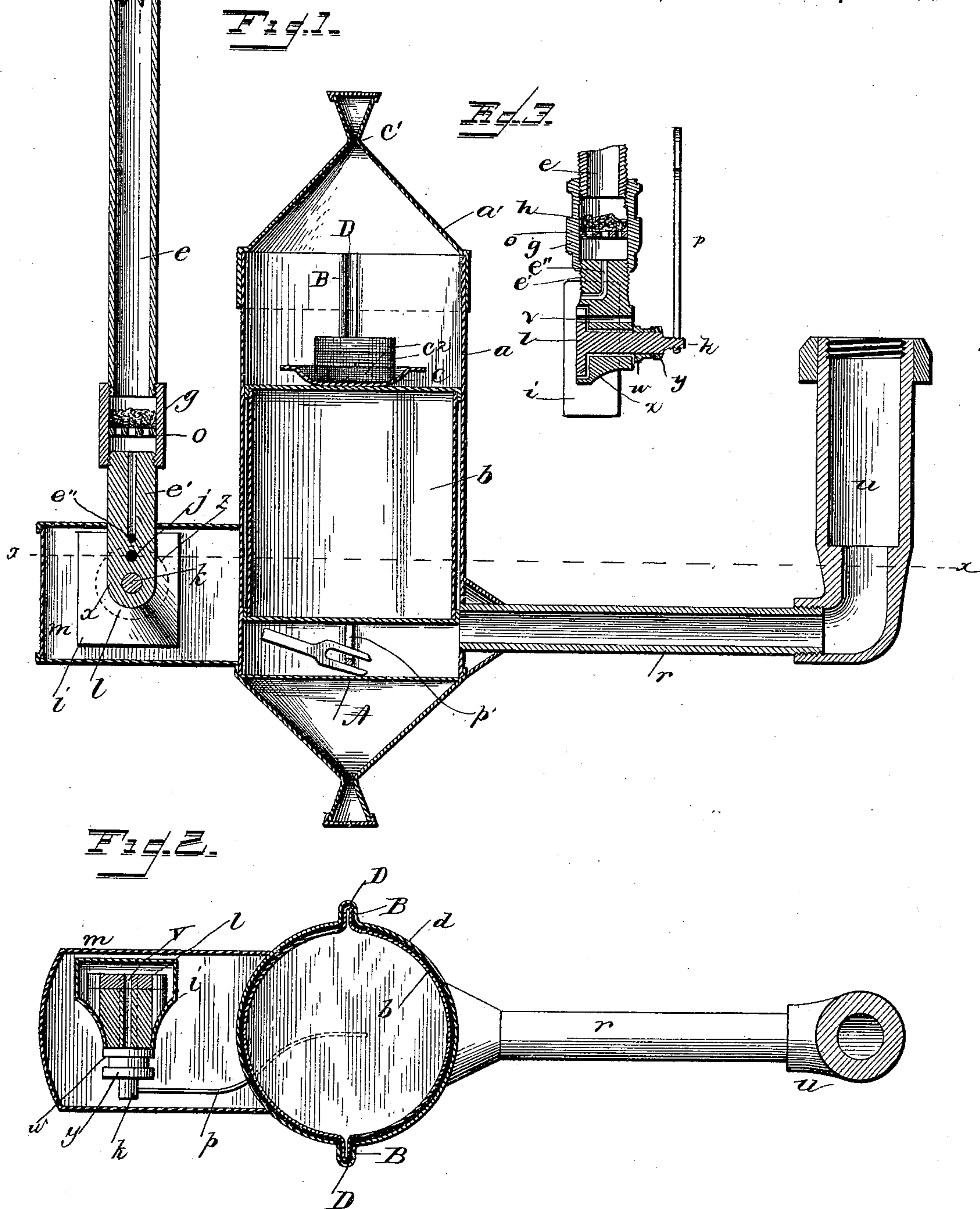
(No Model.)

J. S. OSTRANDER.

FOUNTAIN LAMP.

No. 336,015.

Patented Feb. 9, 1886.



WITNESSES

F. L. Ourand.
John T. Duter.

INVENTOR

James S. Ostrander

By W. T. Dennis
Attorney

UNITED STATES PATENT OFFICE.

JAMES S. OSTRANDER, OF RICHMOND, INDIANA.

FOUNTAIN-LAMP.

SPECIFICATION forming part of Letters Patent No. 336,015, dated February 9, 1886.

Application filed May 28, 1884. Serial No. 133,000. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. OSTRANDER, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Fountain-Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of fountain-lamps in which one or more lamps receive their supply of burning material from an elevated reservoir in a continuous flow.

My invention consists in an arrangement of mechanism by which the flow of oil to the lamp is automatically regulated and controlled when one or more lamps are connected with a single supply-pipe.

Figure 1 represents a vertical sectional view of my improved lamp, and Fig. 2 a horizontal sectional view of the same on the line $x x$ of Fig. 1. Fig. 3 represents a sectional view of the valve and valve-casing detached.

In Fig. 1, a represents an upright cylindrical receiver, provided with a removable cap, a' . b is a cylindrical float placed within the receiver a , and is allowed to move vertically within the same. c is an open cup secured to the top of the float b , which is to receive the weight c' . e is a supply-pipe, the lower end of which is provided with a screw-thread on the outside, which engages with a corresponding screw-thread in a collar, g , into which it enters. The supply-pipe e is connected with an elevated reservoir, from which the oil or other material used in the lamp is obtained. A stem, e' , provided with a base, x , rounded on one side and having a vertical flat face on the other, is provided with a screw-thread, which enters the collar g opposite the supply-pipe e , and forms a continuous opening between the stem e' and the supply-pipe e by means of a longitudinal opening in the stem e , which communicates with an opening constructed in the base x . The vertical face of the base x is recessed, and the recess is made with a rim, z , and fitted to receive a circular valve-plate, l , which has an axis, with which it revolves. The axis k , Fig. 1, has its seat in a lateral opening in the lower part of the base x , carrying on its end opposite the valve l a washer, w , and a screw-nut, y , and a valve-arm, p . The cir-

cular valve-plate l is fitted to work closely in the recess or valve-seat, and is provided with an opening in its face, which communicates with a corresponding opening in the upper portion of the base x , Fig. 3. A casing, i , surrounds the base x , rectangular in form, into which a curved tube, e'' , extends. The tube e'' is connected with the lower portion of the supply-pipe e , and is situated within the upper portion of the stem e' . The case i incloses the upper portion of the base x tightly, and receives the fluid descending from the elevated reservoir.

Within the collar g , and between the lower end of the supply-pipe e and the upper end of the stem e' , is placed a horizontal perforated plate, o , Fig. 1, upon which is placed a sponge or other porous substance, to arrest and retain any impurities which the oil or other fluid may contain, and which may be removed by detaching the supply-pipe e . An extension of the base of the receiving-cylinder m incloses the rectangular casing i , on the opposite side to which is a discharge-pipe, r , connecting with the base of a lamp or lamps to be supplied. The valve-arm p is rigidly attached to the axis k at its end opposite the circular valve-plate l , and at right angles to the same at one end, and its opposite end is provided with a slot, A . A horizontal bar, p' , having an angular depression in the center, depends from the bottom surface of the float and passes through the slot A of the valve-rod, and as the float is moved up or down it carries the valve-rod and actuates the circular valve l by its motion. The oil or other fluid, starting from an elevated reservoir, descends through the supply-pipe e , and is relieved of its impurities or foreign substance by passing through the sponge h and perforated plate o , passes through the tube or opening e'' within the stem e' , and is discharged into the casing i until it reaches the opening in the face of the circular valve-plate communicating with the opening v , and passing into the interior of the cylindrical receiver a . As the fluid rises in the receiver it reaches the bottom surface of the float b , which, while carried up by the fluid, carries with it the valve-arm p , by its connection with the horizontal arm p' , and at the same time turning the circular valve-plate in its seat until, arriving at the desired height, the con-

nection with the tube e'' is closed and the supply peremptorily cut off. As the supply is exhausted by the consumption of the lamp or lamps the float is lowered, the valve operated by the valve-arm is returned to its connection with the tube e'' , and the supply is again permitted to flow.

The cup c , Fig. 1, is designed to contain a series of weights, c' , one or more of which may be employed, according to the pressure required.

The sides of the receiver a are constructed with grooves projecting outward, as shown at $D D$, Fig. 2, and the sides of the float b are constructed similarly, having tongues $B B$, fitting into the grooves of the receiver, which serve as a guide for the float in its vertical movements. The free flow of oil from the elevated reservoir into the casing i permits the gravitating pressure of the oil to act directly upon the face-surface of the circular valve-plate l , which, to the extent of said pressure, serves to hold said valve in its seat and aids in producing a tight joint. The nut

y and washer w upon the axis k also serve to hold the valve up to its seat. The valve-arm p is bent in the central portion, as shown in Fig. 2, to enable the connection with the arm p' to be made in the central portion of the same.

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

The combination, in a fountain-lamp, of the receiver and its cap and ventilator c' , float having guides B , working in grooves D , the cap c , secured to the top of the same and adapted to receive one or more weights, the supply-pipe and valve, and arm p , by means of which the supply-pipe and valve are connected to the lower part of the float, the whole arranged to operate substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES S. OSTRANDER.

Witnesses:

BENJAMIN F. HARRIS,
W. T. DENNIS.