

E. J. M. BECKER.

FOUNTAIN LAMP.

No. 187,959.

Patented March 6, 1877.

Fig. 1.

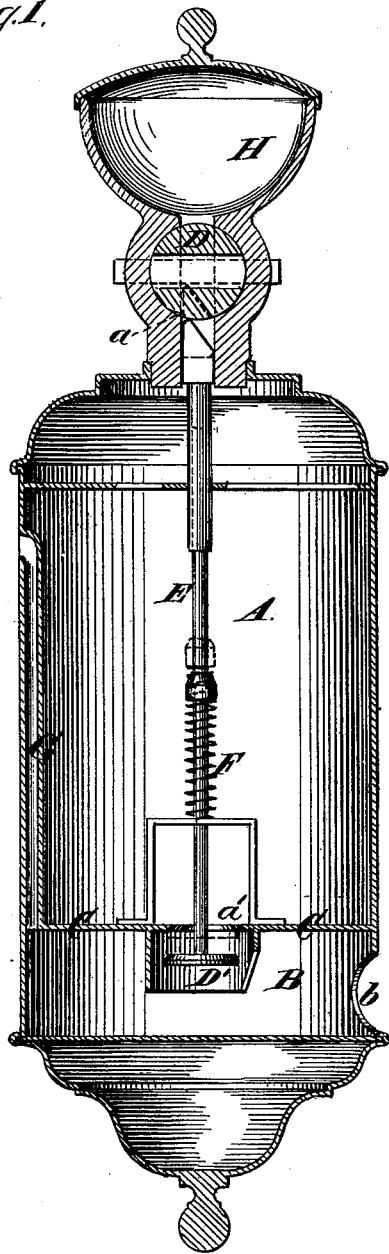
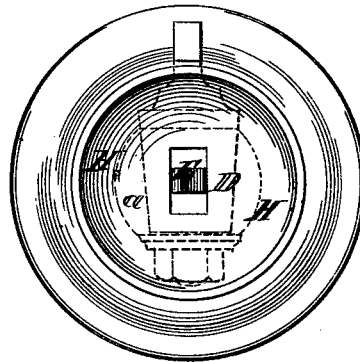


Fig. 2.



Witnesses

Benjamin W. Hoffman
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IMPROVEMENT IN FOUNTAIN-LAMPS.

Specification forming part of Letters Patent No. **187,959**, dated March 6, 1877; application filed January 31, 1876.

To all whom it may concern:

Be it known that I, E. JOHN M. BECKER, of the city, county, and State of New York, have invented a new and useful Improvement in Fountain-Lamps, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

This invention relates to lamp-reservoirs, which embody the additional properties of a fountain. It consists in the combination of such a reservoir and valves, an air-passage at the side of the former providing for the ingress of air into the lower compartment, to allow liquid to flow therefrom to the burner, and a reception cup or funnel for facilitating the introduction of liquid through said plug-valve. It also consists in the combination, with a plug-valve in the primary compartment of a fountain-reservoir and the valve of the secondary compartment, of a rod attached to the latter, and so combined with the key of the former that it moves the latter away from its seat when the said key of the former is oscillated or turned to close the passage which it controls.

In the accompanying drawing, Figure 1 represents a central vertical section of my combined reservoir and fountain. Fig. 2 is a plan view of the same.

Similar letters indicate the same parts in the different views.

A is the primary, and B the secondary, compartment of the reservoir, separated by the partition C. The partition may be situated at or near the discharge-opening of the reservoir. The reservoir, which is closed on top and bottom, has openings *b* and *a*. Into the discharge-opening *b* a pipe is fitted, which leads from the lower compartment B to the burner of the lamp. The opening *a* in the top covering of the reservoir serves to receive a valve-seat for the valve D. The partition C has also an opening, *a'*, which is provided with a valve-seat for the valve D'. The valves D, D' are made to operate in relation with each other—that is to say, one valve opens when the other closes.

In the drawing I have shown a rod, E, attached to the valve D', and provided at its upper end with a toe, which enters the chan-

nel of the plug-valve, and is forced down by it in closing, thereby opening the valve D'. In the arrangement shown in the drawing the closing of the valve D effects the simultaneous opening of the valve D', and a communication is established between the compartments A and B by means of the opening *a'* in the partition C. The valve D can be closed only by counteracting the pressure of the spring F, which may be done by any known mechanical means. Provision is made to lock the valves in this position for any desired length of time. The air for the lower compartment B is provided by inserting a pipe or tube, G, into the partition C, and leading said pipe or tube outward through the wall of the reservoir. The passage of the air may be formed in various ways.

For the purpose of filling the fountain-reservoir with fluid the upper valve D is opened and the valve D' moved to its seat, whereby it closes the opening *a'* in the partition C. The reservoir is filled with fluid until the upper valve D is covered by the same.

In the arrangement shown in the drawing, a receptacle, H, is provided above the valve D to receive the overflow and to prevent the fluid from escaping when the reservoir is overcharged. Meantime the fluid is prevented from filling the lower compartment B by the valve D'. The upper valve D is now closed, and the lower valve D' opened through the action of the rod E. According to the known principle, the fluid of the primary compartment escapes into the secondary compartment B, and is led to the wick of the lamp or to the place where it is consumed. The necessary air for the displacement of the fluid is supplied by the air-passage G to the lower or secondary compartment B of the reservoir. When the reservoir is empty the operation is repeated. The removal of the fount from the reservoir is entirely obviated. I am, therefore, enabled to place a large fount in or near at the center of a chandelier, and supply a number of burners connected therewith with burning-fluid. Hence the misfortune of spilling the fluid in course of filling the fount is reduced to a minimum.

I do not confine myself to any particular kind of valve in the lower compartment, nor

to any particular material for forming the fountain.

I claim as my invention—

1. In combination, with a liquid-reservoir, the primary compartment A, the secondary compartment B, partition C, air-pipe G, valves D and D', and the reception-cup H, all arranged substantially as shown and described, and for the purpose set forth.

2. The combination, with a plug-valve in the primary compartment of a fountain-res-

ervoir and the valve of the secondary compartment, of a rod attached to the latter, and so combined with the key of the former that, when it is turned to close the passage which it controls, the said rod is made to force open the said valve of the secondary compartment, substantially as herein described.

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Witnesses:

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