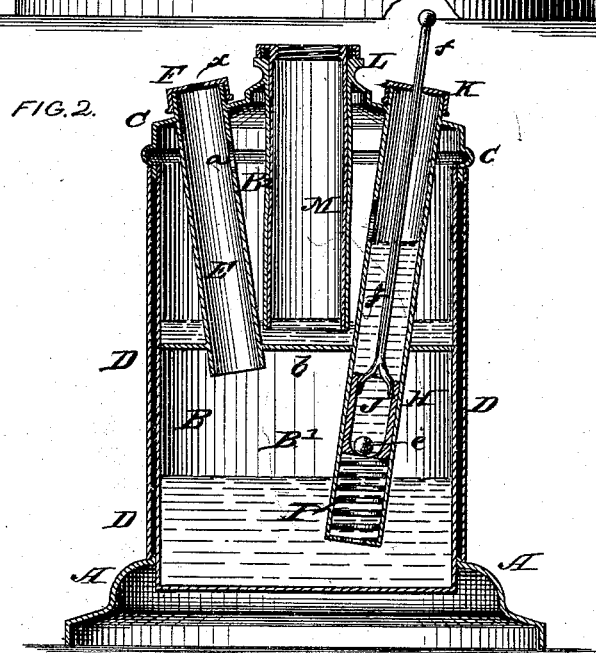
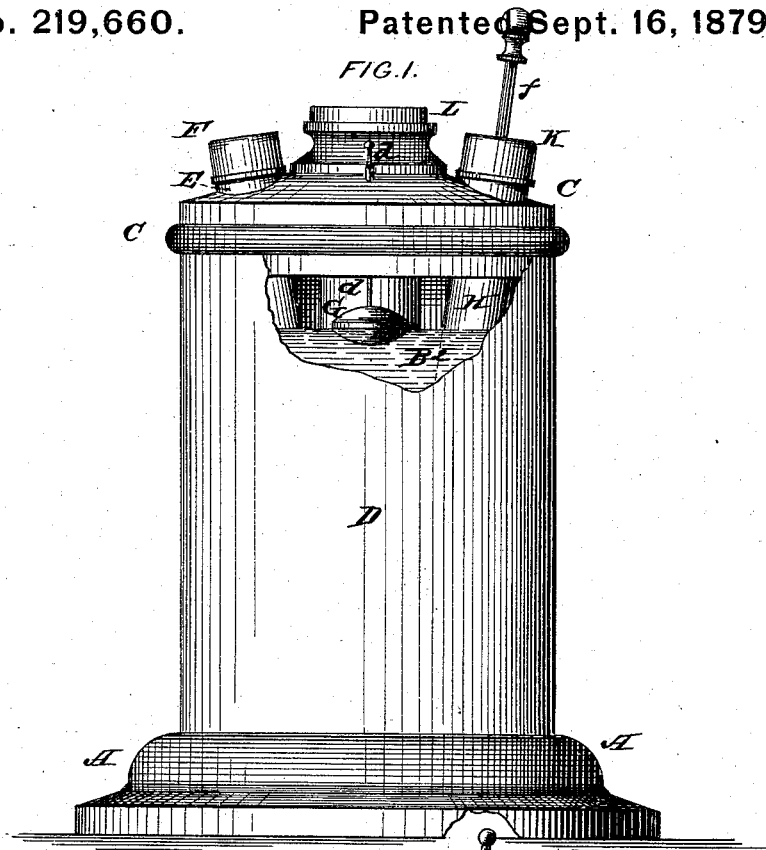


Lamp.

**No. 219,660.**

Patented Sept. 16, 1879.



**Witnesses:**

John F. C. President

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Inventor

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# UNITED STATES PATENT OFFICE.

WILLIAM STAEHLEN, OF NEW YORK, N. Y., ASSIGNOR TO BENNETT B. SCHNEIDER, OF SAME PLACE.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 219,660, dated September 16, 1879; application filed March 1, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM STAEHLEN, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to the class of lamps known as "pump-lamps;" and it consists in a pump-lamp with a lower and upper reservoir, and in the construction of the filling-tube, the pump, and tube inside the collar of the upper reservoir, all as hereinafter more fully set forth.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a side elevation of my lamp, partly broken open to show the float. Fig. 2 is a central vertical section of the same.

A represents the base of the lamp, to which the cylinder B is attached, and on the upper end thereof is secured the top C. D is an outside shell surrounding the cylinder B, and connecting the top or base. In the cylinder B is a central horizontal diaphragm or partition, *b*, which divides the cylinder into a lower reservoir, B<sup>1</sup>, and an upper reservoir, B<sup>2</sup>.

E represents the filling-tube, secured in the top C and extending downward through the partition *b*. This filling-tube is open at the lower end into the lower reservoir, B<sup>1</sup>, and has also an opening, *a*, into the upper reservoir, B<sup>2</sup>, so that both reservoirs can be filled at the same time through one pipe.

The upper end of the filling-tube E is provided with a cap, F, having an air-hole, *x*, to provide the necessary air-pressure for the oil in the reservoirs.

G is a float in the upper reservoir, B<sup>1</sup>, provided with a rod, *d*, which passes up through the top C. This float and rod rise and fall with the rise and fall of the oil in the upper reservoir, thus showing at all times the standing of the oil in said reservoir.

H is a pump-cylinder, passing through and secured to the top C, and extending through the partition *b* into the lower part of the lower reservoir, B<sup>1</sup>.

In the bottom of the cylinder H is placed

a spiral spring, I, upon which is supported a hollow metallic plunger, J, having a ball-valve, *e*, therein.

From the plunger J extends the rod *f* upward through the cap K on the upper end of the cylinder H.

By means of this pump the oil may be pumped from the lower to the upper reservoir without moving any part of the lamp.

From the collar L, in the center of the top C, extends a tube, M, downward to the lower portion of the upper reservoir, to prevent the wick from interfering with the action of the float.

Pump-lamps have been made in which the oil is contained in the base as a reservoir, and provided with a top reservoir into which the oil is pumped, said top reservoir being movable and forming the pump.

The up-and-down movement of the top reservoir, with the burner attached, pumped the oil up to the top reservoir, and there was no provision for the oil to overflow, except over the top of the wick-tube.

This construction could only be used for animal and heavy vegetable oils, but will not answer for coal-oils.

In my lamp the upper reservoir with the burner remains stationary with the lower reservoir, and a separate pump is provided for pumping the oil from the lower to the upper reservoir, which admits of coal or other light oils being used.

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

1. A pump-lamp having a lower and an upper oil-reservoir made in one and permanently connected together, as set forth.

2. A pump-lamp having a lower and an upper oil-reservoir with a single filling-pipe for filling both reservoirs, substantially as herein set forth.

3. In combination with a pump-lamp, the pump-cylinder H, spring I, and metallic plunger J, with ball-valve *e*, as shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM STAEHLEN.

Witnesses:

W. H. TRIPP,

G. H. BOUTON.