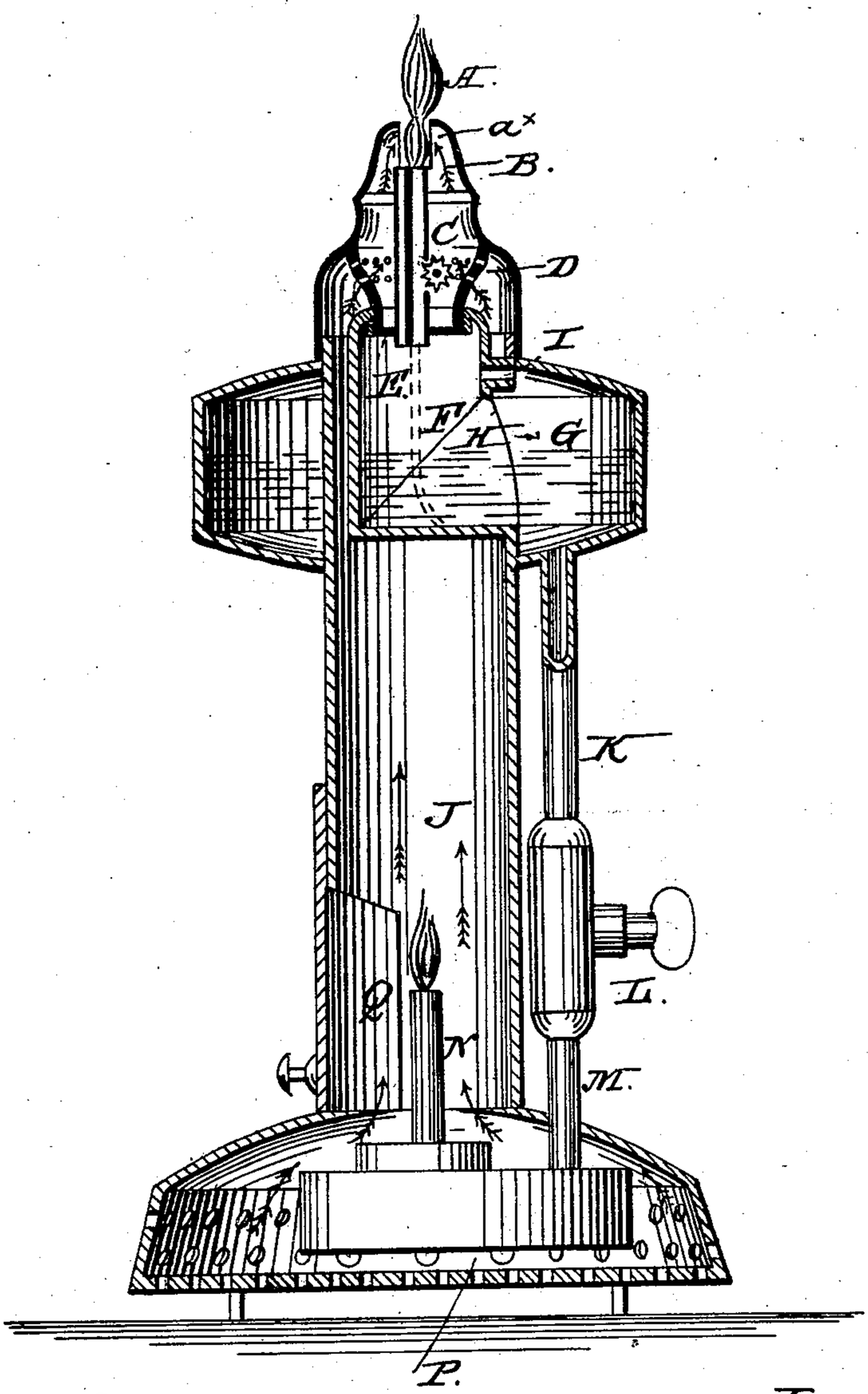
W. W. JACOBS.

Lamp.

No. 85,099. Patented Dec. 22, 1868.



Witnesses
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W. W. JACOBS, OF HAGERSTOWN, MARYLAND.

Letters Patent No. 85,099, *dated December* 22, 1868.

IMPROVEMENT IN LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. W. JACOBS, of Hagerstown, in the county of Washington, and State of Maryland, have invented a new and improved Lamp; and that the following description, taken in connection with the accompanying drawing hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and improved lamp, of that class which is designed for burning coal-oil and other similar hydrocarbons, which require a large amount of oxygen to support proper combustion for illuminating-purposes.

The object of the invention is to obtain a lamp whereby said hydrocarbons may be burned without the usual draught-chimney.

The accompanying drawing represents a side sectional view of my invention.

The invention consists of an ordinary glass or metallic lamp enclosed with an outer shell, or an opening, through the main reservoir or oil-cup, which is placed upon a hollow tube, or the main stem of the lamp, through which I force an ascending current of air, supplying the necessary amount of oxygen to the illuminating-flame, thereby producing perfect combusstion, and a soft, mellow light, by the means of a small flame of light at the bottom of the main stem of the lamp, which flame is required to be very small, and kept at the proper height to produce the required amount of heat to supply the flame with the required amount of oxygen to feed the flame. This I accomplish by the use of a metallic tube, leading from the main reservoir or oil-cup.

This tube is properly packed, and furnished with a stop-cock to regulate the required amount of oil to feed the burning flame at the bottom of the main stem or base of lamp, thus keeping the flame properly supplied as long as there is oil contained in the vessel.

A is the flame.

B is the cone of burner, the slit $a^{\times}$, through which the flame protrudes, being cut down on both sides, on a level with the top of wick-tube, for the purpose of spreading the flame.

C is the ratchet-wheel.

D is the outer covering or flange of burner, extending to the top of oil-chamber, and fitting closely, so as to let none of the ascending air escape.

E is the collar and screw of burner.

F is the wick.

G is the vessel to contain the oil.

H is the opening to conduct the oil into the oil-cup G.

I is an opening at the top of the oil-cup, to let the air escape, as the cup is being filled with oil.

The arrows represent the ascending current of air from the heat of the small burner N at the base of the lamp; and in the bottom of the hollow or tubular support J is a metallic tube to conduct oil from the reservoir G G to the burner N.

L is the stop-cock, to regulate the desired amount of oil required to feed the flame at N.

M is that part of the tube K which is securely packed with any porous material to contain the oil, when the stop-cock is closed and the flame N is out, or the lower lamp not burning.

O is a slide on the stem of the lamp, to raise or lower for the purpose of lighting and regulating the flame at burner N.

P is the perforated bottom, to conduct fresh air into the lower end of the tubular support J.

The lamp being lighted, immediately causes a constant and steady ascending current of fresh air through the support J, and, conducted to the flame, thus supplying the flame A with a continuous stream of fresh air, causes perfect combustion, and produces a steady, soft, and mellow white light, without the use of a chimney.

Upon one side of the wick-tube, and of the same length, is formed a supplementary tube for the purpose of conducting the gas or vapor, arising from the oil within the reservoir, to the flame of the lamp, where it is consumed. By this arrangement the gas is allowed to escape from the reservoir and prevent the explosion of the lamp.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The metallic tube or pipe K and the stop-cock L, for the purpose of supplying the lower burner N from the fountain or reservoir G of the lamp, as set forth.

The above specification of my invention signed by me, this 30th day of April, 1867.

W. W. JACOBS.

Witnesses:

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