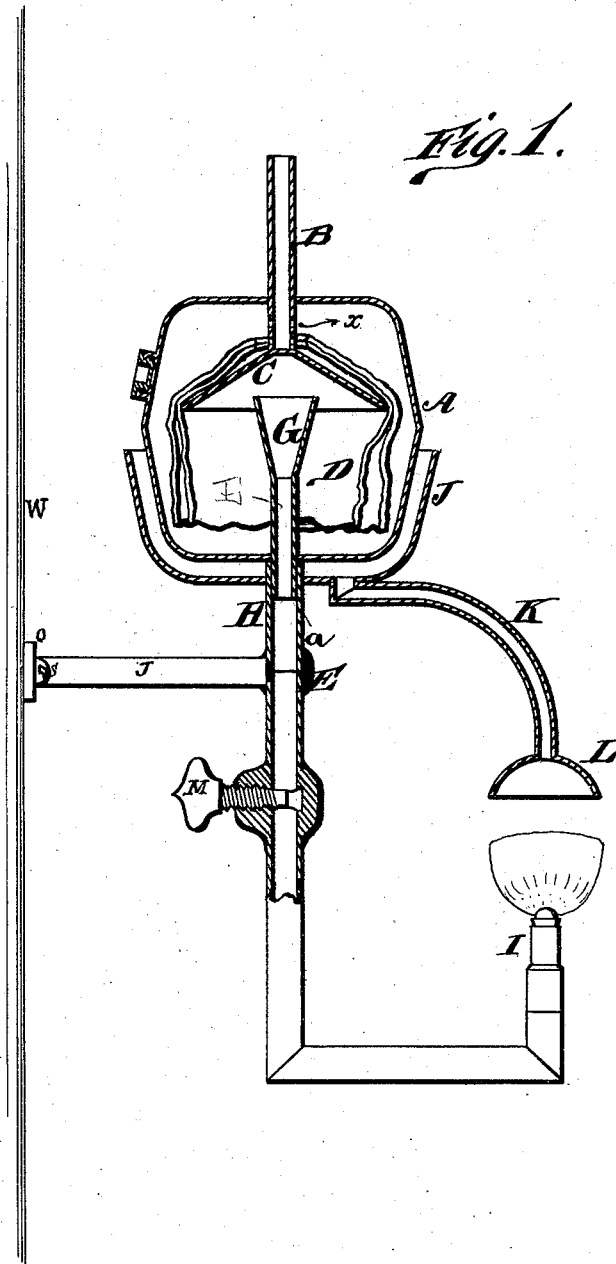


J. J. & F. G. PALMER.
Carbureting Lamps.

No. 197,944.

Patented Dec. 11, 1877.



WITNESSES

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JASON J. PALMER AND FRANKLIN G. PALMER, OF PHILADELPHIA, PA.

IMPROVEMENT IN CARBURETING-LAMPS.

Specification forming part of Letters Patent No. **197,944**, dated December 11, 1877; application filed June 9, 1877.

To all whom it may concern:

Be it known that we, JASON J. PALMER and FRANKLIN G. PALMER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Carbureting-Lamps; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a transverse vertical sectional view of our carbureting-lamp.

The nature of our invention consists in the construction and arrangement of a carbureting-lamp, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates our invention.

A represents the gasoline-reservoir, provided at the top with an air-inlet pipe, B, which extends downward a suitable distance into the reservoir, and has at its lower end an inverted funnel, C, attached to it. The lower end of the air-pipe B is closed; but in its sides, immediately above the apex of the funnel C, are apertures *a*, for the escape of the air, which will then be distributed over the upper surface of the funnel.

D represents the absorbent material, which is suspended over the inverted funnel C, and hangs down below the same into the gasoline. E represents the gas-outlet pipe, which passes through the bottom of the reservoir, extends upward into the same a suitable distance, and has a funnel, G, attached to its upper end. The upper end of this funnel is beneath and within the inverted funnel C, as shown.

The air-pipe B extends above the fount or reservoir A, thereby preventing the gas overflowing into the room, as the gas is heavier than the air, and will therefore not rise and overflow the pipe.

The gas-outlet pipe E extends below the fount or reservoir A, and forms a ground-joint,

a, in the pipe H, which conveys the gas to the burner I. The part *a* of the pipe E, being a ground-joint with the pipe H, admits of removing the fount from the other parts of the apparatus for the purpose of filling, and we are thus enabled to use stationary fixtures, like ordinary coal-gas fixtures.

On the upper end of the pipe H is secured a casing, J, which surrounds the lower part of the reservoir. From the bottom of this casing extends a pipe, K, to a smoke-bell, L, located a suitable distance above the burner I.

The operation of the lamp is as follows: The gasoline being filled into the lamp up to the feeder, the gas rises at once, and descends through the funnel G and pipes E H to the stop-cock M in the latter pipe. This stop-cock, being opened, allows the gas to pass to the burner by its own gravity, where it can be lighted, and air passes down the pipe B to supply its place, passing into the fount above the funnel C, thence around its edges through the absorbent D, where it becomes carbureted, and upward to the mouth of the funnel G, and thus to the burner. This funnel G facilitates the flow of the gas downward into the pipes.

The smoke-bell L, with its pipe K and the casing J, conducts the heat from the burner to and around the fount or reservoir A.

In attaching the movable fount we may, in place of the ground-joint, use a flexible tube or gum hose.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a carbureting-lamp, the reservoir A, in combination with the casing J, permanently suspended from a wall, and provided with the pipe H, to which the detachable pipe E is united by the ground-joint *a*, substantially as described, and for the purpose set forth.

2. In a carbureting-lamp, the air-distributing funnel C, provided with the absorbent D, in combination with the gas-collecting funnel G, the latter being arranged beneath and within the former, and both within the reservoir A, substantially as described, and for the purpose set forth.

3. The combination of the fount A, air-pipe B, with side apertures *x*, inverted funnel C, and absorbent D, substantially as and for the purposes herein set forth.

4. In combination with the fount or reservoir A, the casing J, pipe K, and smoke-bell L, for the purposes set forth.

In testimony that we claim the above we have

hereunto subscribed our names in the presence of two witnesses.

JASON J. PALMER.
FRANKLIN G. PALMER.

Witnesses:

JOS. J. MAGUIRE,
H. D. DUBOIS.