

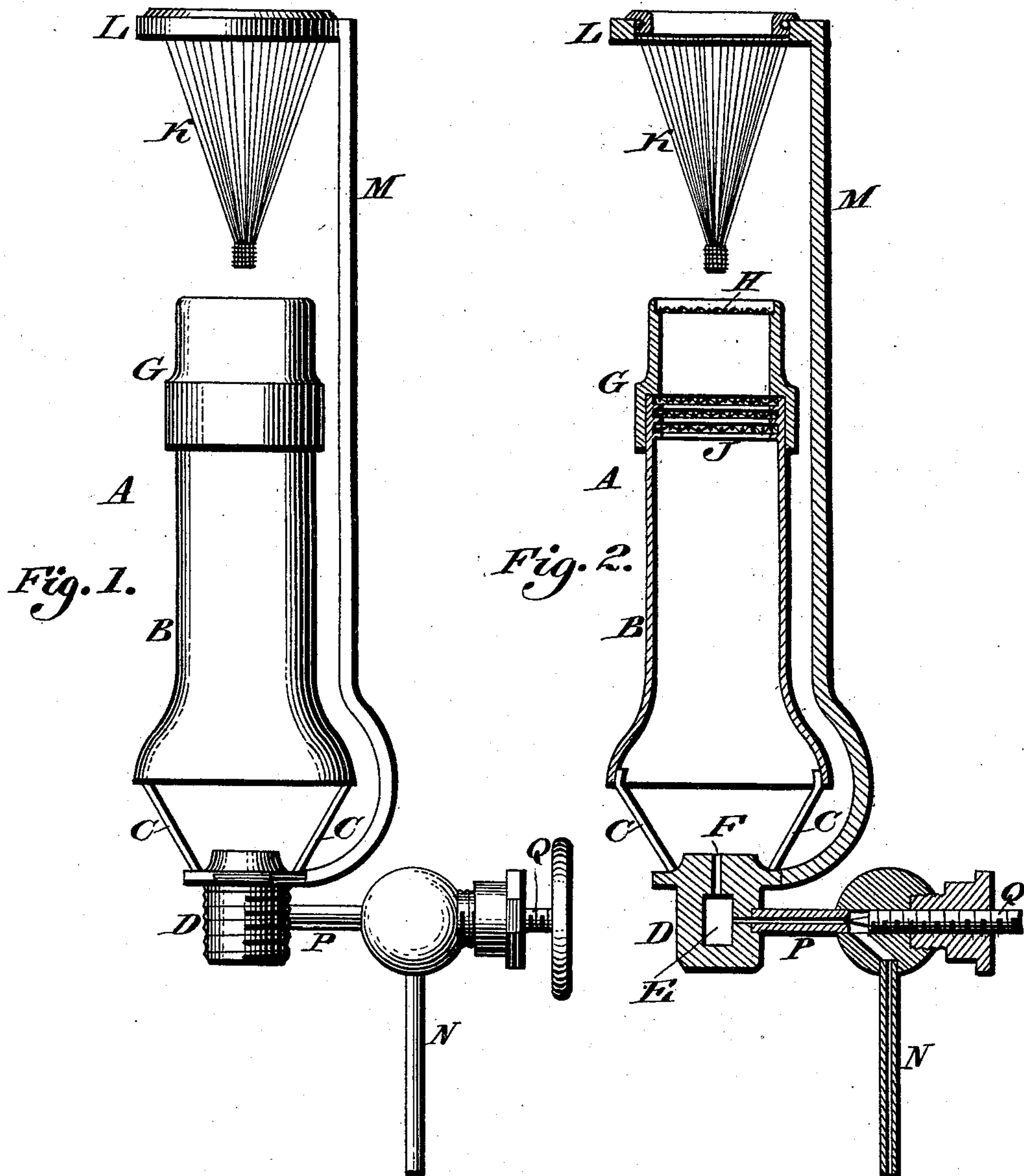
No. 613,922.

Patented Nov. 8, 1898.

H. M. HAMRICK.
BURNER.

(Application filed Aug. 22, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY M. HAMRICK, OF PHILADELPHIA, PENNSYLVANIA.

BURNER.

SPECIFICATION forming part of Letters Patent No. 613,922, dated November 8, 1898.

Application filed August 22, 1898. Serial No. 689,223. (No model.)

To all whom it may concern:

Be it known that I, HARRY M. HAMRICK, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Burners, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improvement in burners; and it consists in providing means independent of the burner-tube for conducting heat from the upper portion of said tube or from a point above the latter to the lower portion thereof.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a side elevation of the burner embodying my invention. Fig. 2 represents a vertical sectional view thereof.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a burner, which consists of the tube B, which is suitably supported by the rods C on a casing or plug D, the latter being provided with a vaporizing-chamber E, having an outlet F, and being adapted to be secured in any desired position. Supported upon said tube B is a cap G, in the upper portion of which is a screen or gauze H, and suitably supported at the upper portion of the tube B are the series of screens J, it being of course understood that the broad principle of my invention, which consists in conducting heat from the mantle by a suitable conductor directly to the vaporizing-chamber by means independent of the burner-tube, will be applicable to other burners than the one shown.

K designates a mantle above the burner-tube, which is secured to the ring L, the latter being supported by a conductor or bar M, which is secured to or forms a part of the plug D, said bar M extending downwardly adjacent to the burner-tube B and being formed of suitable heat-conducting material.

N designates a supply-pipe which leads from a suitable source of supply (not shown) and communicates with a pipe P, which leads into the chamber E in the plug or casing D.

A suitable pin-valve Q or analogous device controls the supply of hydrocarbon, as desired.

The operation is as follows: The hydrocarbon passes through the supply-pipe N, then into the chamber E, where it is vaporized or gasified, and passes out through the outlet F into the tube B, where it commingles with the air entering between the rods C and passes up through the screens, where it is ignited and heats the mantle, it being noticed that the bar M being adjacent to said mantle is quickly heated and conveys the heat to the casing D—that is, from the mantle or upper portion of the tube B to the lower portion thereof—and thus effectually vaporizes the hydrocarbon in the chamber E.

It will be evident that various changes may be made in the construction herein shown and described, and I do not desire, therefore, to be limited to the exact construction I have herein shown and described, but reserve to myself the right to make all such changes as may come within the scope of my invention.

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

1. In a burner, the combination of a vaporizing-chamber, a conductor supported thereon, a tube suitably supported above said chamber, air-inlet passages intermediate of said chamber and tube and a mantle sustained from said conductor, whereby heat is conducted from said mantle to said vaporizing-chamber.

2. In a burner, a tube, a vaporizing-chamber, means for introducing hydrocarbon thereinto, a mantle located above said tube, but disconnected therefrom, and an upright conductor independent of said tube and adapted to conduct the heat from a point above said tube to a point below the latter, said mantle being supported upon said conductor.

3. In a burner, a tube, a plug or casing having a vaporizing-chamber therein below said tube, said tube, being suitably supported above said casing, a conductor independent of said tube and leading to said chamber and a mantle supported by said conductor, whereby heat is conducted from a point above said tube, to a point below the latter.

4. The combination of a tube, a vaporizing-chamber, a conductor arising from said chamber, but disconnected from said tube, and a mantle supported upon said conductor, where-

by heat is conducted from the upper portion of said tube independently of the latter to a point below said tube.

5 The combination of a plug or casing, a vaporizing-chamber therein, a tube supported upon said casing and adapted to receive air in its lower extremity, inlet and outlet ports for said casing, screens or gauze in said tube,

a conductor arising from said casing, and a mantle supported above said tube by means of said conductor.

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