

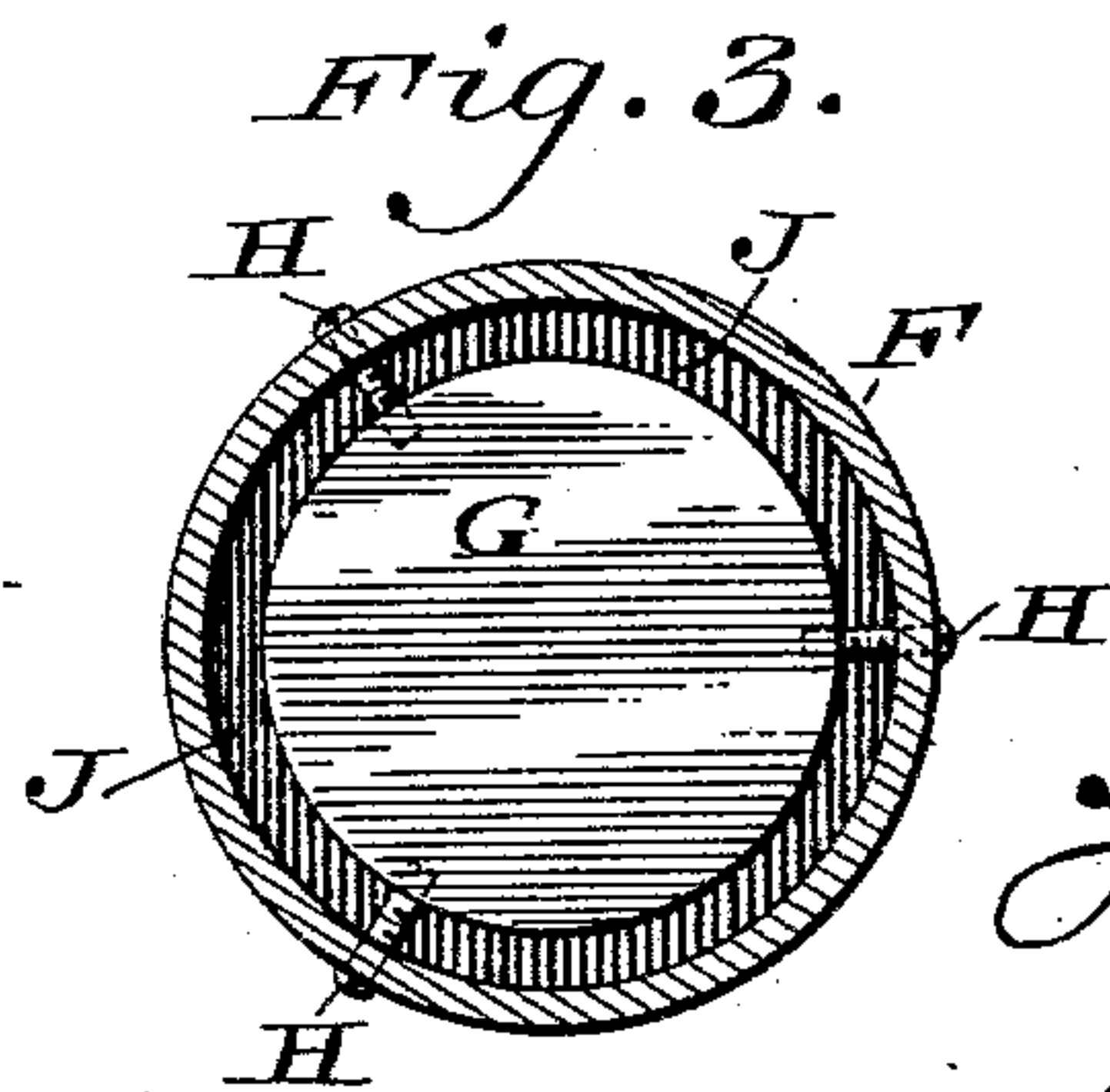
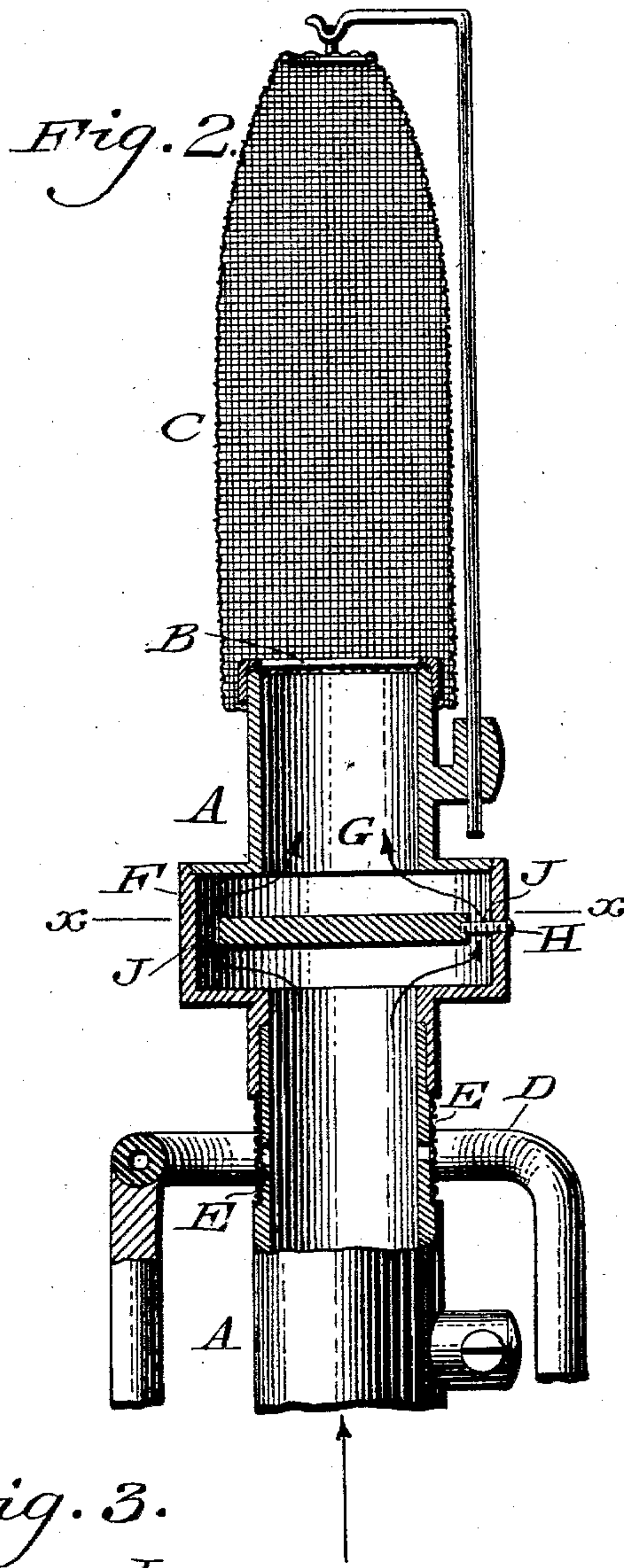
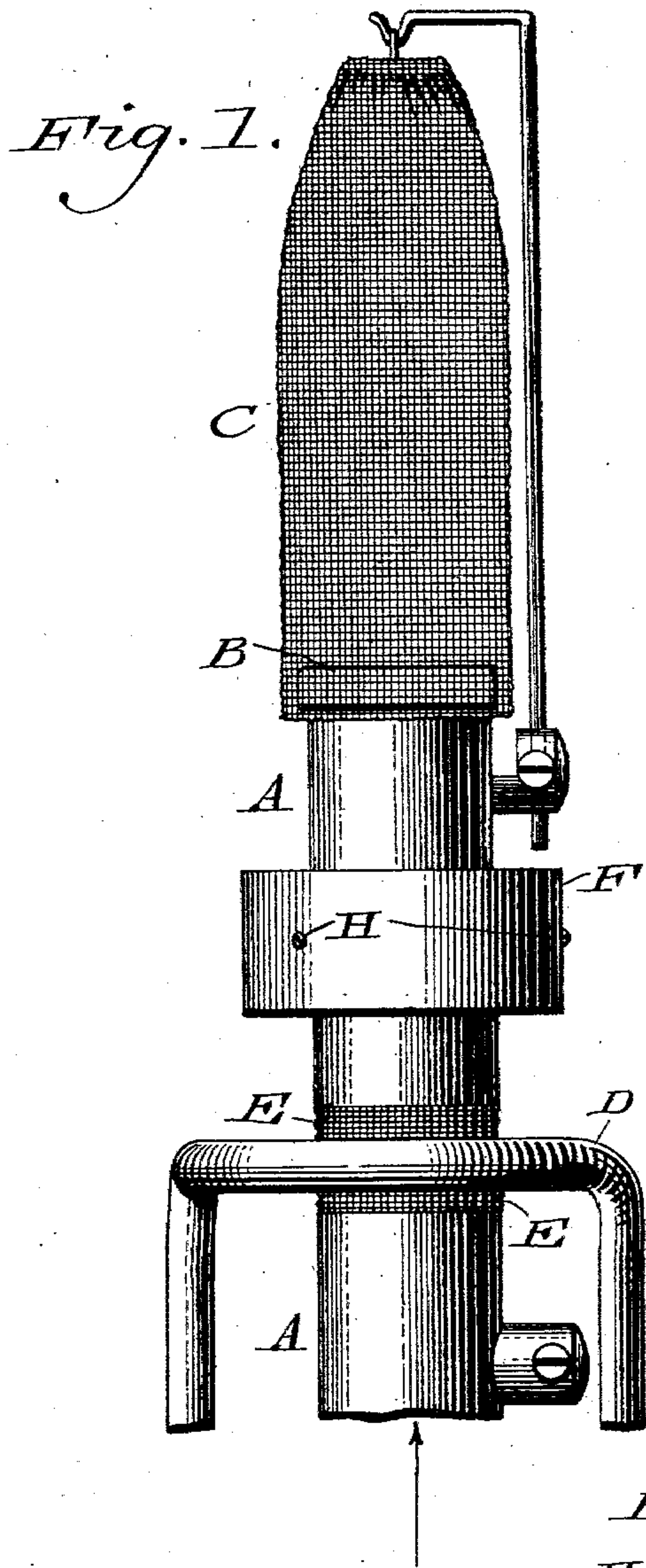
No. 629,356.

Patented July 25, 1899.

H. M. HAMRICK.
VAPOR BURNER.

(Application filed Jan. 31, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY M. HAMRICK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
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VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 629,356, dated July 25, 1899.

Application filed January 31, 1899. Serial No. 703,991. (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 Vapor-Burners or Lamps, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists in providing a vapor-burner or lamp with means whereby the singing or roaring heretofore occurring in a lamp of the class is prevented and a superheater is provided for the intermixed vapor or gas and air.

Figure 1 represents a side elevation of a vapor-burner or lamp embodying my invention. Fig. 2 represents a vertical section thereof. Fig. 3 represents a horizontal section on line $x x$, Fig. 1.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the supply flue or tube of the cap or burner proper, B, and C designates a mantle properly suspended over said cap.

D designates a vaporizer or gas-generator which is adapted to be heated by the flame from the side burner E of the flue A, which features form no part of the present invention.

In the length of the flue A is the superheating-chamber F, within which is the deflector or diaphragm G, secured thereto or suspended therein by the screws H or other suitable means and separated from the walls of said chamber, whereby a passage J exists around the diaphragm to permit the ascent of gas or vapor from the lower section of the flue A through the chamber F to the burner B, said chamber being preferably wider than said flue. It will now be seen that as the vapor leaves the lower section of the flue A it impinges against the diaphragm G and is deflected laterally by the same to the passage J, through which it is directed to the upper section of the flue, and so supplied to the burner B. By this provision as the course of the ascending vapor is changed from vertical to horizontal it is uniformly distributed in the chamber F, and its force is broken,

thus preventing humming and roaring of the lamp without, however, affecting a proper supply of vapor to the burner, as the chamber F receives a large volume of the same from the lower section of the flue A, and so feeds the upper section thereof, while the humming and roaring in the lamp are prevented, as has been stated.

The lower section of the flue or tube A constitutes the mixing-chamber of the vapor and air. As the chamber F is located it is subjected to the heat of the burner E, and so constitutes a superheater for the intermixed vapor and air and causes the resultant gas to be of a superior order, the same producing a most brilliant and steady light.

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

1. In a vapor-burner or lamp, a vapor-supply tube, a burner located above said tube, an enlarged chamber intermediate said burner and tube, a diaphragm of greater diameter than said burner or tube and of less diameter than said chamber located in the latter intermediate the top and bottom thereof, means for heating said chamber located in proximity thereto, and supporting devices for said diaphragm.

2. In a vapor-burner or lamp, a vapor-supply tube, a burner located above said tube, a superheating-chamber interposed between said supply-tube and burner, a diaphragm located in said superheating-chamber intermediate the top and bottom thereof, said chamber being of greater diameter than said tube, means for heating said chamber from a point adjacent the same and supporting devices for said diaphragm.

3. In a vapor-burner or lamp, the combination of a burner, a vapor-supply tube, a superheating-chamber supported thereupon of greater diameter than said tube, a diaphragm supported in said chamber intermediate the top and bottom thereof, and screws or supporting devices common to said diaphragm and chamber.

HARRY M. HAMRICK.

Witnesses:

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