

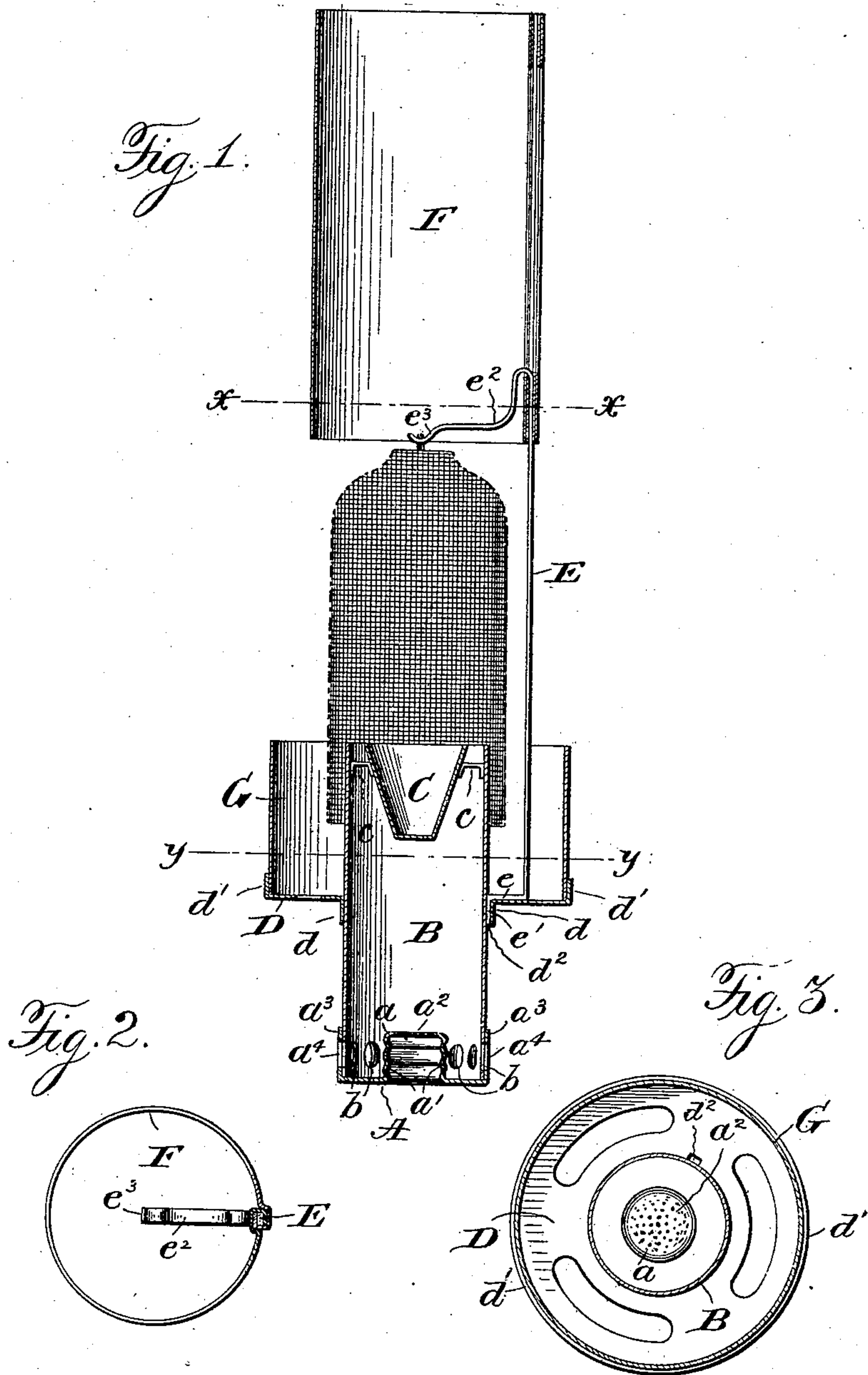
No. 713,127.

Patented Nov. 11, 1902.

R. MARSH.
LAMP.

(Application filed Dec. 20, 1900.)

(No Model.)



Witnesses:
Jas. Hutchinson
Henry C. Hazard

Inventor
Rivins Marsh, by
Cindell Russell, his Att'y

UNITED STATES PATENT OFFICE.

RIVERIUS MARSH, OF NEW BRUNSWICK, NEW JERSEY, ASSIGNOR TO
GEORGE W. GLAENTZER, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 713,127, dated November 11, 1902.

Application filed December 20, 1900. Serial No. 40,520. (No model.)

To all whom it may concern:

Be it known that I, RIVERIUS MARSH, of New Brunswick, in the county of Middlesex, and in the State of New Jersey, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

10 Figure 1 is a vertical sectional view of a lamp embodying my invention. Fig. 2 is a horizontal sectional view taken on line $x x$ of Fig. 1, and Fig. 3 is a like view taken on line $y y$ of the said figure.

15 Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to produce a gas-lamp of the incandescent type of high efficiency and great simplicity; and to such ends my invention consists in the lamp hereinafter specified.

In carrying my invention into practice I provide a part A, having a central cup-shape projection a , whose wall a' is threaded for engagement with the thread on the end of a gas-pipe and whose bottom a^2 is perforated for the passage of the gas. A cylindrical wall a^3 is formed on the outer edge of the part A, and such wall is provided with apertures a^4 and a^4 for the admission of air to the burner. A vertical tube B fits snugly within and is supported by the wall a^3 , and such tube is provided with apertures b and b , which correspond to the apertures a^4 and a^4 , so that by turning the part A and tube B relative to each other the extent of opening of the apertures a^4 and a^4 can be regulated and the amount of air entering the burner thus controlled. The tube B has within its upper end

40 an inverted cone C, such cone being supported by arms c and c , which are attached thereto and to the tube B. The base of the cone is smaller than the diameter of the tube, so that there is an annular space between such parts.

45 An annular plate D, having a downwardly-projecting flange d on its inner edge and an upwardly-projecting flange d' on its outer edge, is held on the tube B, preferably by friction between such parts, although it may

50 rest on a bead or other projection on such tube. A mantle-holder consisting of a pref-

erably flat strip of metal E is supported on the plate D by a horizontal arm e , which rests on such plate, and a vertical arm e' , which is inserted through a notch d^2 in the inner edge of said plate, the flange d forming an outer wall and the tube B forming an inner wall to sustain the arm e' . If desired, the mantle-holder can be engaged between a groove in the wall a^3 and the tube B instead of as before described. The upper end of the mantle-holder is provided with an arm e^2 , which extends to a central position over the tube B, and the inner end of such arm is formed into a hook e^3 , which sustains the mantle. A tube F is supported by the upper portion of the mantle-holder, such tube being preferably engaged with the said holder by friction. I preferably form the tube F by bending a sheet of metal into tubular form and bending a portion along one of the meeting edges outward against the face of the sheet, while a portion along the opposite edge is bent outward, forward, and under, the two edges being thus provided with opposite hooks. The strip E is placed between the said hooks, as shown in Fig. 3, and the hooks are engaged and pressed together on opposite sides of the said strip, thus forming a passage in which such strip is frictionally retained. A short tube G is supported on the plate D and is retained in place by its flange d' . The plate D is preferably provided with openings to permit air to pass upward therethrough and around the mantle.

In the operation of my lamp a transparent inclosure can be provided, if desired; but there are many uses indoors in which such protection can be dispensed with and only the parts illustrated in the drawings be used. The gas enters the tube B through the perforations in the bottom a^2 of the projection a , and the air enters through the apertures a^4 and a^4 . The mixture of air and gas rises in the tube B, strikes the cone, and issues through the annular space between such parts in a conical sheet, which strikes the mantle in a manner to advantageously distribute the combustible mixture over its surface. If it is desired to protect the mantle during such time as the lamp is not in use, the upper tube can be slid down on the strip

E until it completely incloses the mantle. The upper tube can be used as a case in which to transport the mantle.

Changes can be made in the above-described construction which are within the scope of my invention.

Features of the above-described invention are not claimed, broadly, herein, but are so claimed in an application executed of even date herewith.

Having thus described my invention, what I claim is—

1. In a lamp having a mantle, the combination of a burner below the mantle, a rod supported by the burner, and normally vertically immovable, and a tube having a length as great as the exposed portion of the mantle, such tube being vertically adjustable on said rod, substantially as described.

2. In a lamp having a mantle, the combination with a stationary mantle-support, of a tube normally above the mantle and adjustable vertically on such support, substantially as and for the purpose described.

3. In a lamp having a mantle, the combination with a tube normally above the mantle, of a mantle-holder which sustains such tube

and on which said tube is vertically adjustable, such mantle-holder being detachable from its support, substantially as and for the purpose described.

4. In a lamp having a mantle, the combination with a mixer-tube, of a plate having a flange surrounding said tube, such flange having a notch therein, and a mantle-holder having an arm confined in such notch and between said tube and such flange, substantially as and for the purpose described.

5. In a lamp having a mantle, the combination with a mixer-tube, of a plate having a flange that surrounds and frictionally engages said tube, such flange having a notch therein, and a mantle-holder having an arm confined in said notch and between said tube and such flange, and having a shoulder which rests on said plate, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of November, 1900.

RIVERIUS MARSH.

Witnesses:

JULIA D. MARSH,

CAROLINE H. MARSH.