SAMUEL ROSS.

Improvement in Lamp Burners.

No. 120,214. Patented Oct. 24, 1871.

Fig. 1

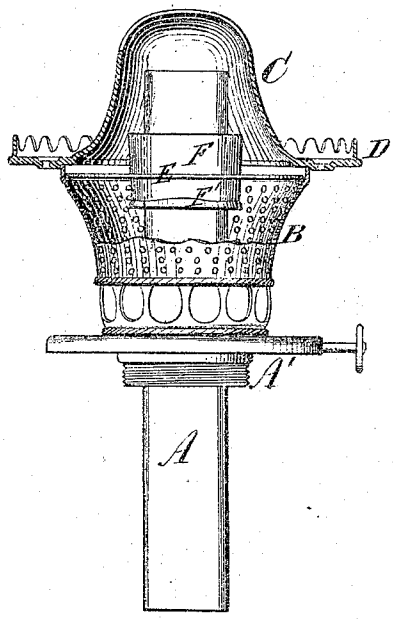


Fig. 2.

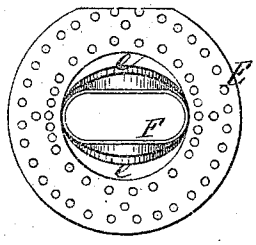


Fig. 3.

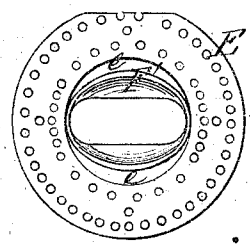
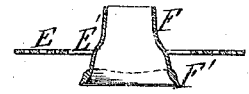


Fig. 4.



Witnesses.
A. Ruppert
C. F. Clausen

Samuel Ross
Inventor.
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Attys

UNITED STATES PATENT OFFICE.

SAMUEL ROSS, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 120,214, dated October 24, 1871.

To all whom it may concern:

Be it known that I, SAMUEL ROSS, of Washington, in the District of Columbia, have invented a certain Improvement in Lamp-Burners, of which the following is a specification:

This invention relates to the class of burners the wick-tube of which is in part surrounded by a short tube for the purpose of inducing an upward current of air in close proximity to said wick-tube to keep it at a low temperature; and my improvement consists in the peculiar shape of this short air-tube and its arrangement within a cylindrical aperture in the perforated flange by which it is suspended, whereby two crescent-shaped openings are left in the flange, one upon each of the flat sides of the air-tube, to permit a large body of air to pass directly from the perforated basket to the flame; the object being to provide for a more perfect combustion of the hydrocarbon, as well as a better means for keeping the wick-tube cool.

Figure 1 is a sectional elevation of my improved burner. Fig. 2 is a top view of the air-tube and its flange. Fig. 3 is a bottom view of the same. Fig. 4 is a transverse vertical section thereof.

The same letters of reference, where employed, indicate identical parts.

A refers to the wick-tube, extending a suitable length from each end of the hollow screw-cap A′, which screws into the neck of the lamp-bowl. The upper exterior end of the wick-tube is surrounded by a perforated basket, B, and the ordinary slotted deflector, C, which terminates at the lower end in the chimney-base D, and is hinged to the basket in the ordinary manner. The air-tube is suspended within the deflector and basket around the wick-tube by a circular disk, E, resting upon a bead on the basket, and which is fastened to the air-tube about midway between the ends of the same, as shown in Figs. 1 and 4. The end of the air-tube above the disk or flange E, marked F, is made with parallel sides and rounded ends, as best seen in Figs. 2 and 3, so as to conform to the shape of the wick-tube, between which and the air-tube is only a narrow space upon all sides for the passage of the air, which is thus brought into close contact with the wick-tube. Below the disk or flange E the air-tube is gradually drawn outward at the sides, so as to make it funnel-shaped, with an elliptical throat, as seen in Figs. 2 and 3, this part of the tube being marked F′. The air-tube is soldered or otherwise fastened at its rounded edges to the edges of a cylindrical aperture, E′, in the disk E, so as to leave upon each of the flat sides of the air-tube a crescent-shaped opening, *e*, in the disk. The latter has also numerous perforations in it for the passage of air in fine jets.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described air-tube, composed of the parts F F′, constructed as set forth, and perforated flange E, with crescent-shaped openings *e e*, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL ROSS.

Witnesses:
A. RUPPERT,
C. F. CLAUSEN.