

A. KIMBER.
Lamp-Burner.

No. 164,006.

Patented June 1, 1875.

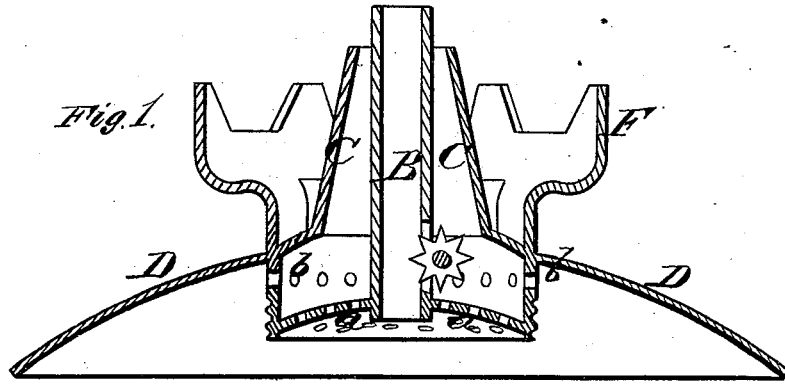
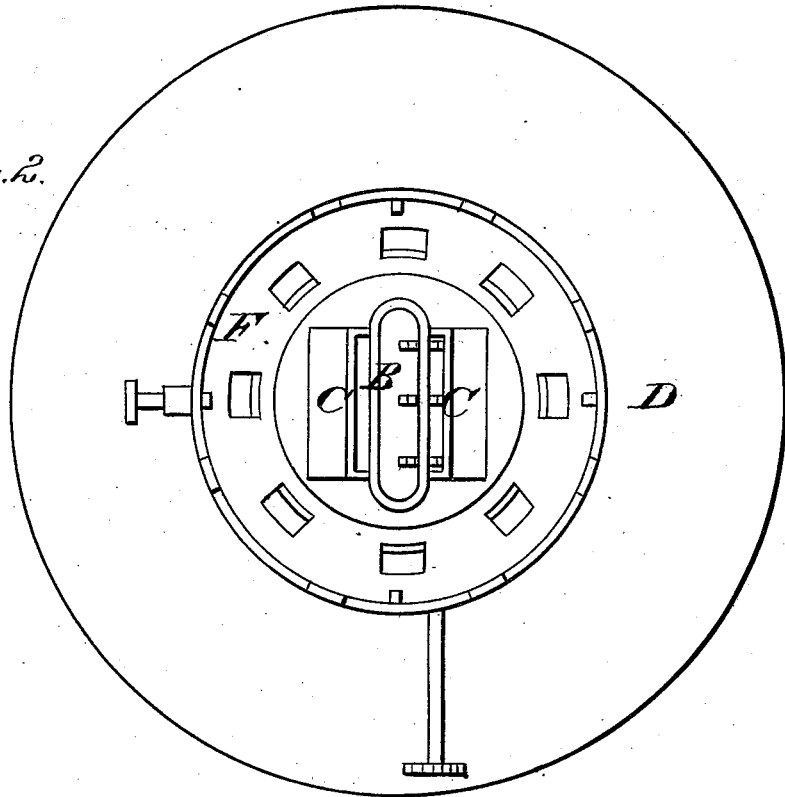


Fig. 2.



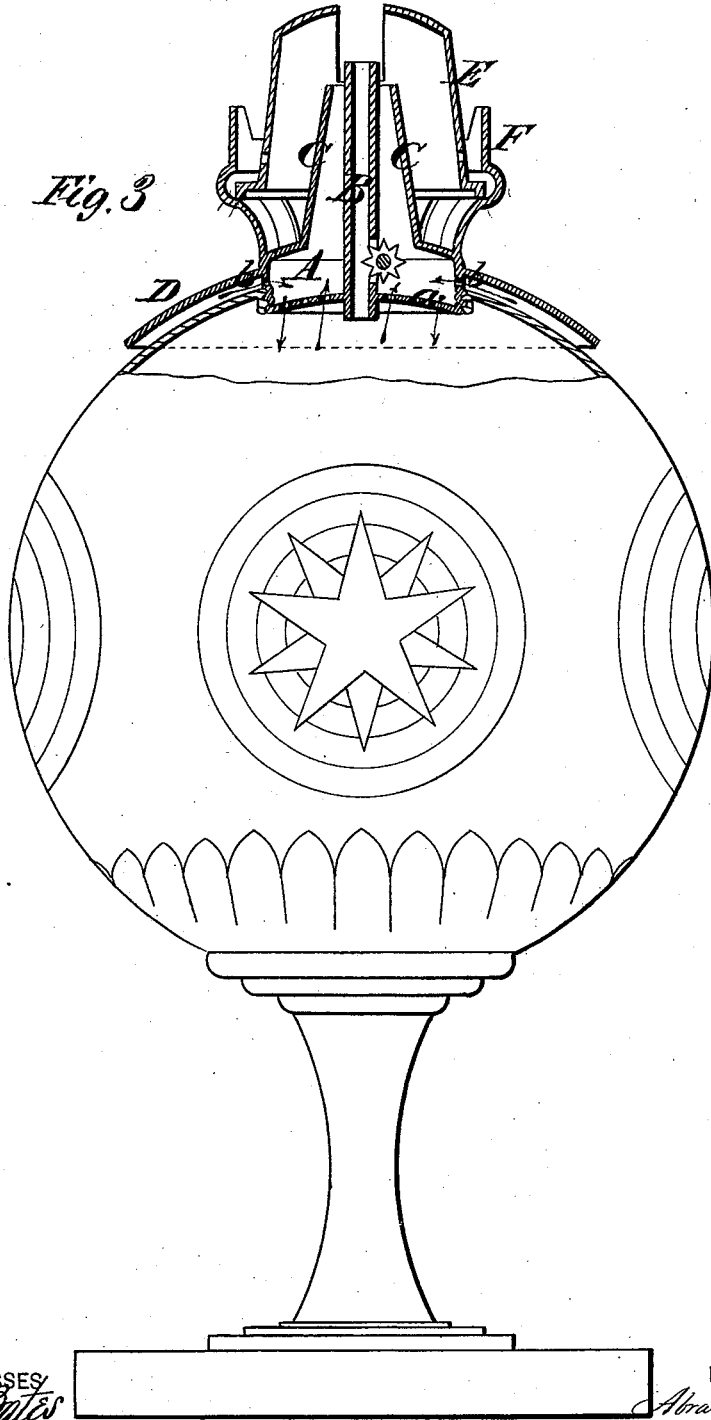
WITNESSES
Chas. H. Bates
Geo. C. Upham

INVENTOR
Abraham Kimber,
Chipman Fossum & Co
ATTORNEYS

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UNITED STATES PATENT OFFICE.

ABRAHAM KIMBER, OF MUNCIE, INDIANA, ASSIGNOR OF ONE-HALF HIS
RIGHT TO WILLIAM G. McMINN, OF WILEY, PENNSYLVANIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **164,006**, dated June 1, 1875; application filed
March 20, 1875.

To all whom it may concern:

Be it known that I, ABRAHAM KIMBER, of Muncie, in the county of Delaware and State of Indiana, have invented a new and valuable Improvement in Lamp-Burners; and I 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of my lamp-burner, and Fig. 2 is a plan view of the same. Fig. 3 is a vertical sectional view of my burner attached to a lamp.

This invention has relation to lamp-burners which are especially designed for burning what are denominated heavy hydrocarbon oils, such as crude petroleum and the like; and the nature of my invention consists in a lamp-burner having a perforated base, in combination with air-tubes, and with orifices in the sides of the burner above the base, and an air-gatherer, whereby currents of air are caused to circulate in the lamp-bowl, where they become charged with the vapor of the oil therein, and are then directed into the flame, as will be hereinafter more fully explained.

In the annexed drawings, A designates the body of my improved burner, which is externally screw-threaded, for the purpose of securing it to the collar of a lamp-bowl, and which is hollow, as shown in Figs. 1 and 3. The bottom *a* of the body A is thickly perforated, for the purpose of forming a communication between the interior of the lamp-bowl and the external air. The sides of the body A are also perforated, as indicated at *b*, for the entrance of air-currents. B designates the wick-tube, which passes through the top and bottom of the body A; and C C are oblong tubes, which taper upward, and which are arranged on opposite sides of the wick-

tube. These tubes C C communicate with the interior of the body of the burner, and are for the purpose of directing currents of air and gas into the flame. D designates an annular concavo-convex skirting, which surrounds the body A, and is attached permanently to it above the perforations *b*. This skirting D extends well over the upper portion of the lamp-body, and when it becomes warm it will gather large quantities of air, and induce this air to pass into the body of the burner through the perforations *b*. Part of the air which enters the body of the burner will descend into the body of the lamp through the perforated bottom *a*, and by mixing with the vapors therein will become carbureted, and then rise through the tubes C C and impinge on the sides of the flame, thus facilitating the combustion, and enabling me to successfully burn the heavy or crude oils without smoke or smell, and without any danger of explosion. The cone E and the chimney-gallery F may be constructed in the usual well-known manner. If desired, the interior of the body A may have a partition in it, so arranged that there will be descending currents on one side of it and ascending currents on the opposite side of it, thus dividing the circulation, so that the currents will not interfere with one another.

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

In a lamp-burner for crude petroleum, having perforations *a* in its bottom and *b* through its sides, tubes C C, leading to the upper end of the wick-tube B, and annular skirting D, combined substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ABRAHAM KIMBER.

Witnesses:

GEORGE E. UPHAM,
E. H. BATES.