

(No Model.)

F. RHIND.  
LAMP BURNER.

No. 379,813.

Patented Mar. 20, 1888.

Fig. 1

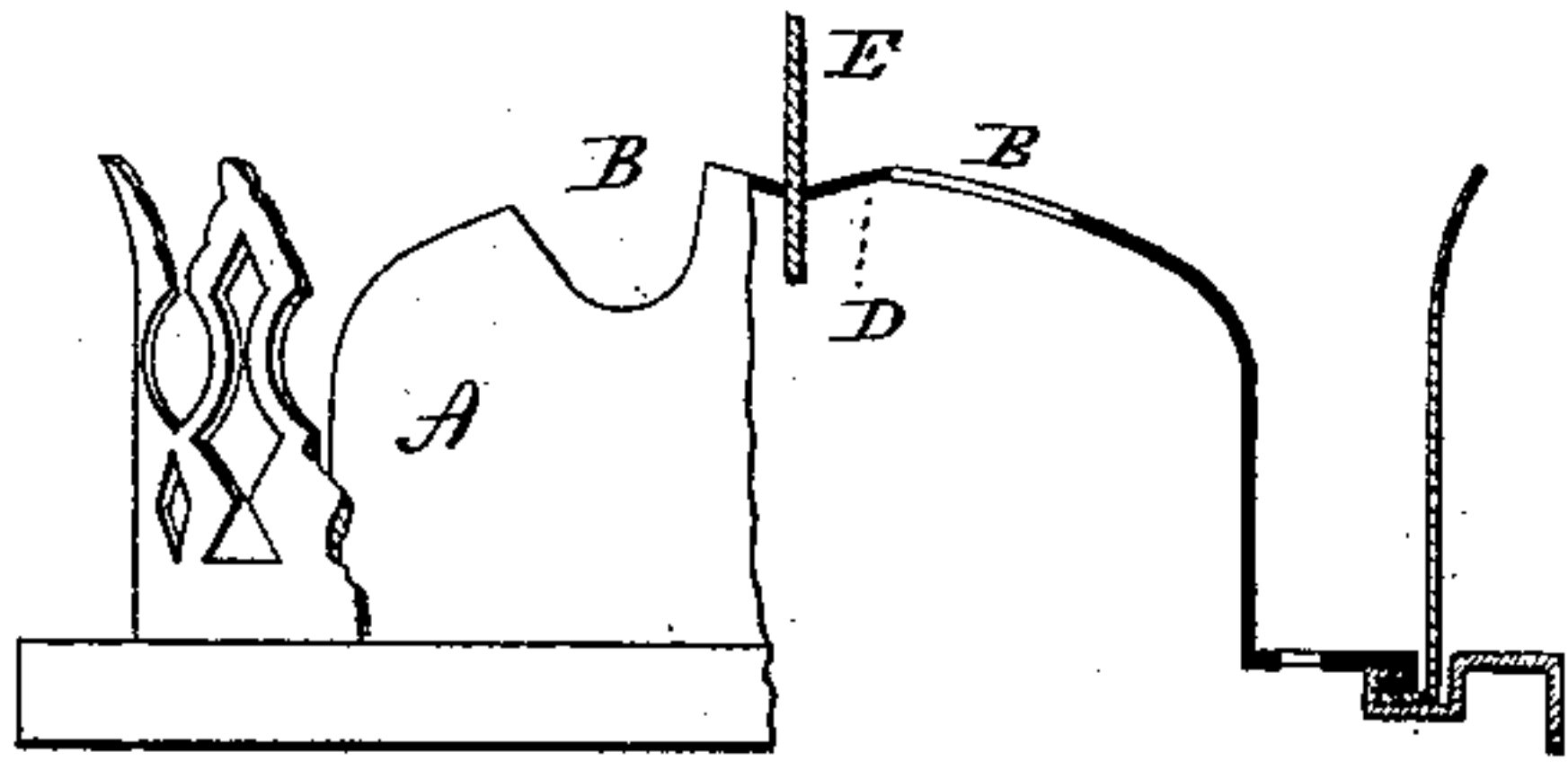


Fig. 2

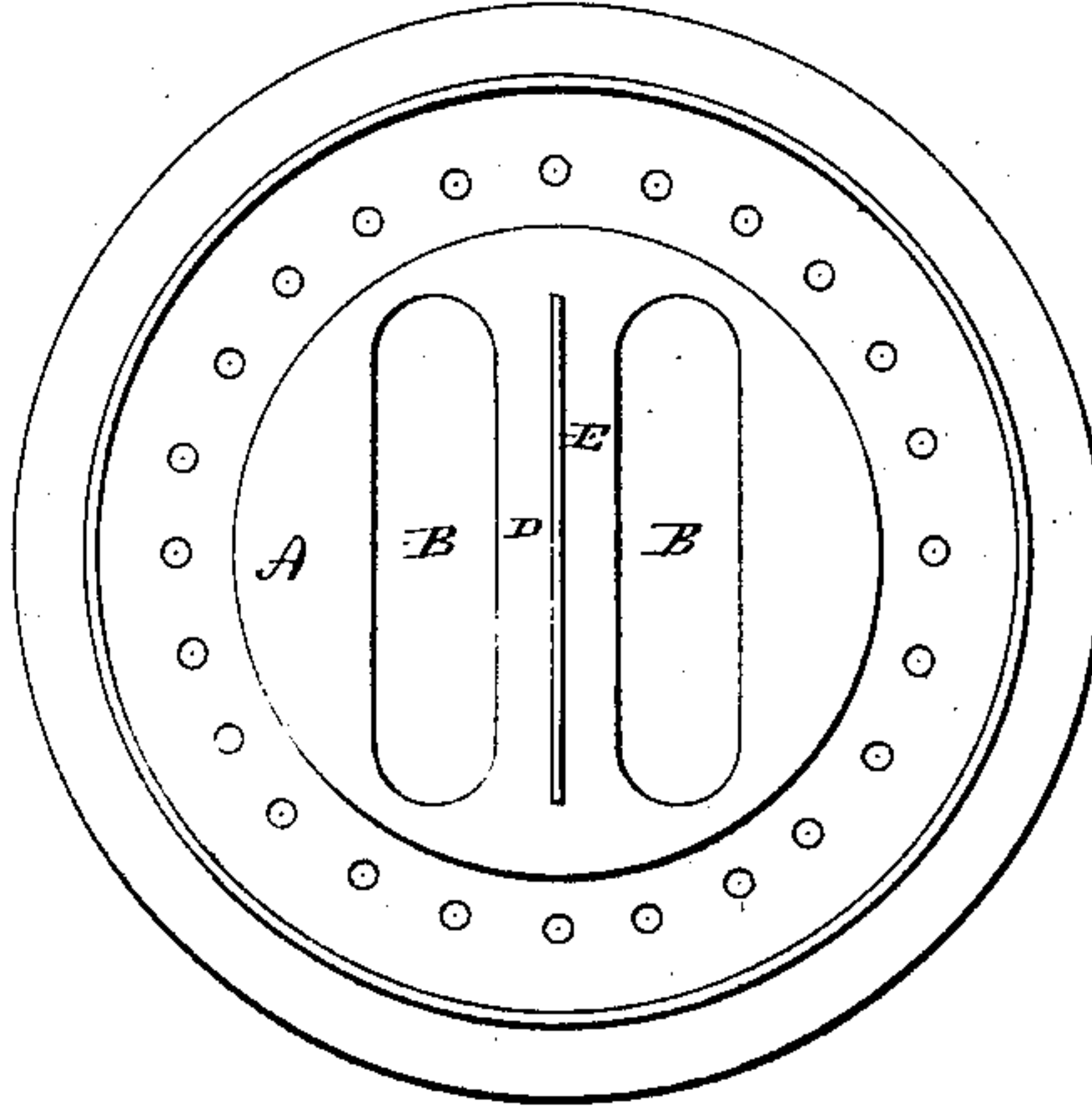


Fig. 3

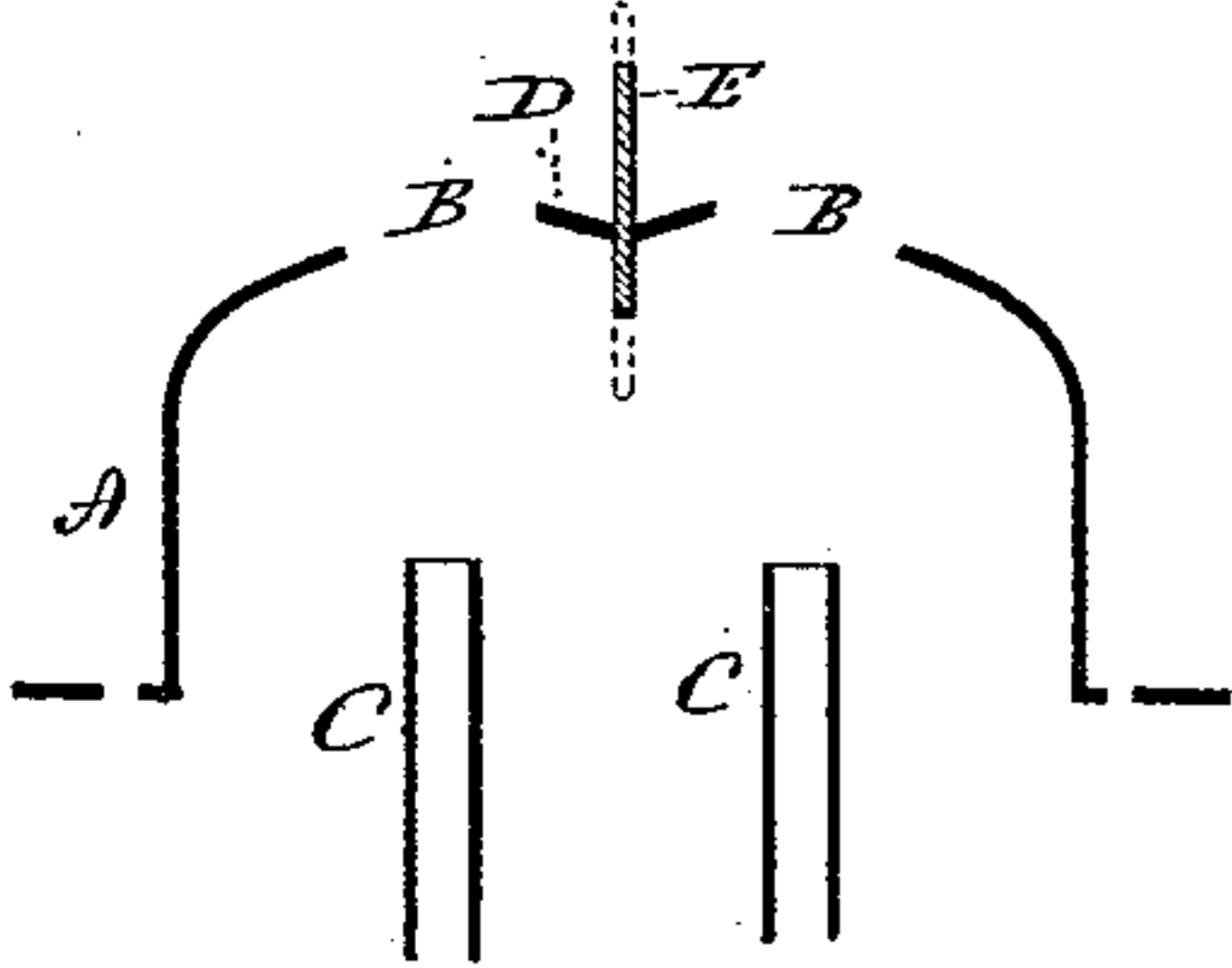


Fig. 4

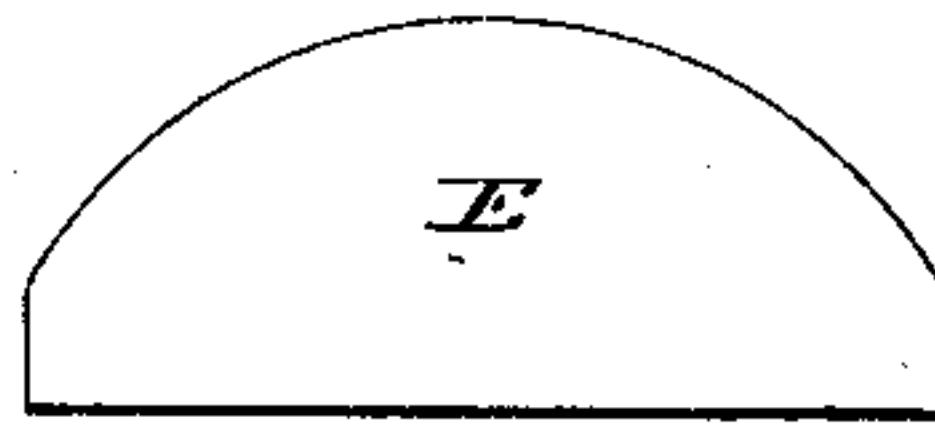


Fig. 5

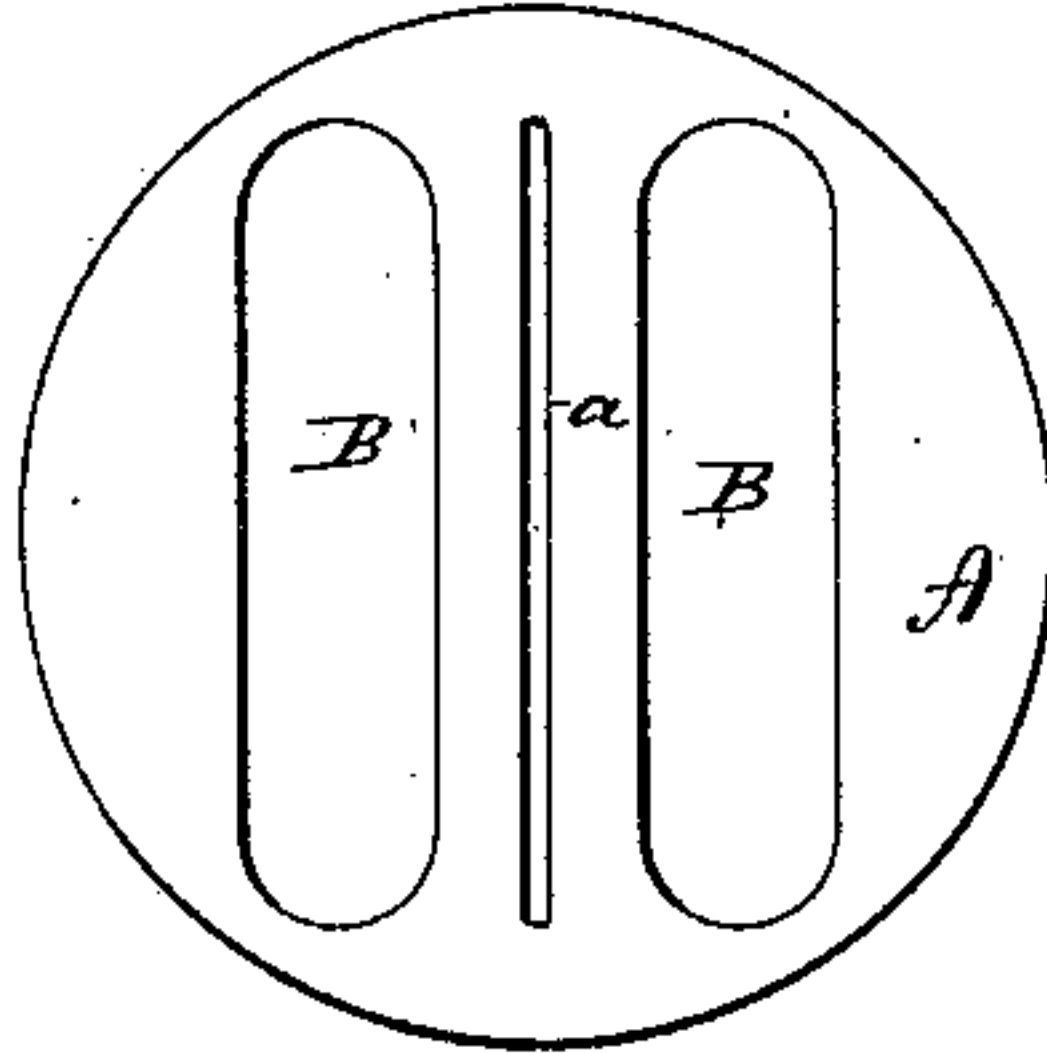


Fig. 6

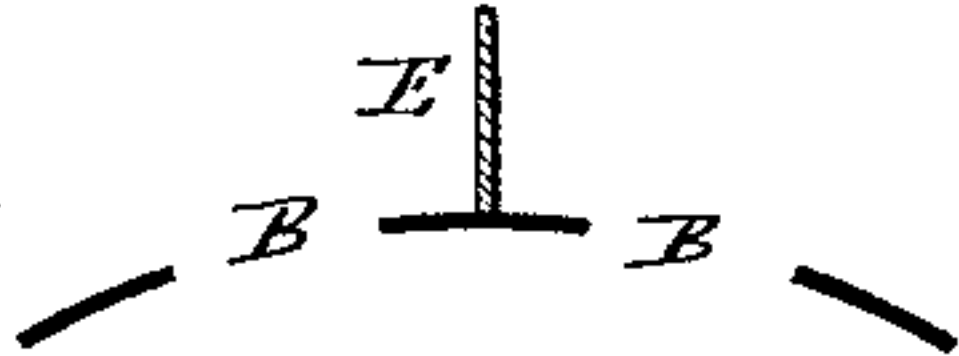


Fig. 7

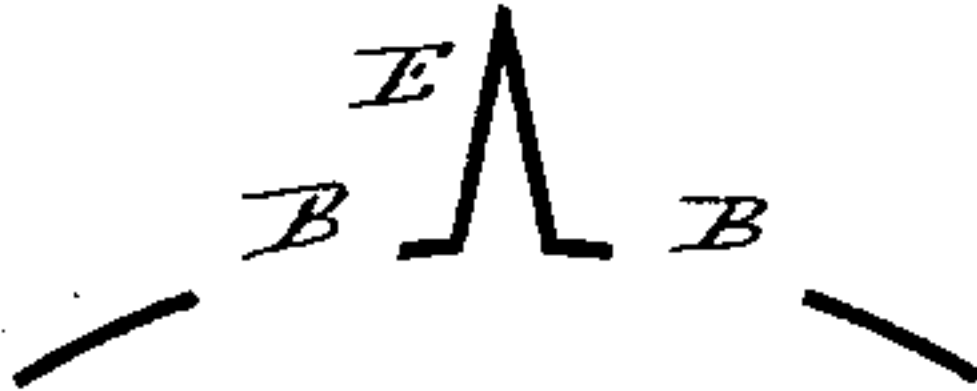


Fig. 8

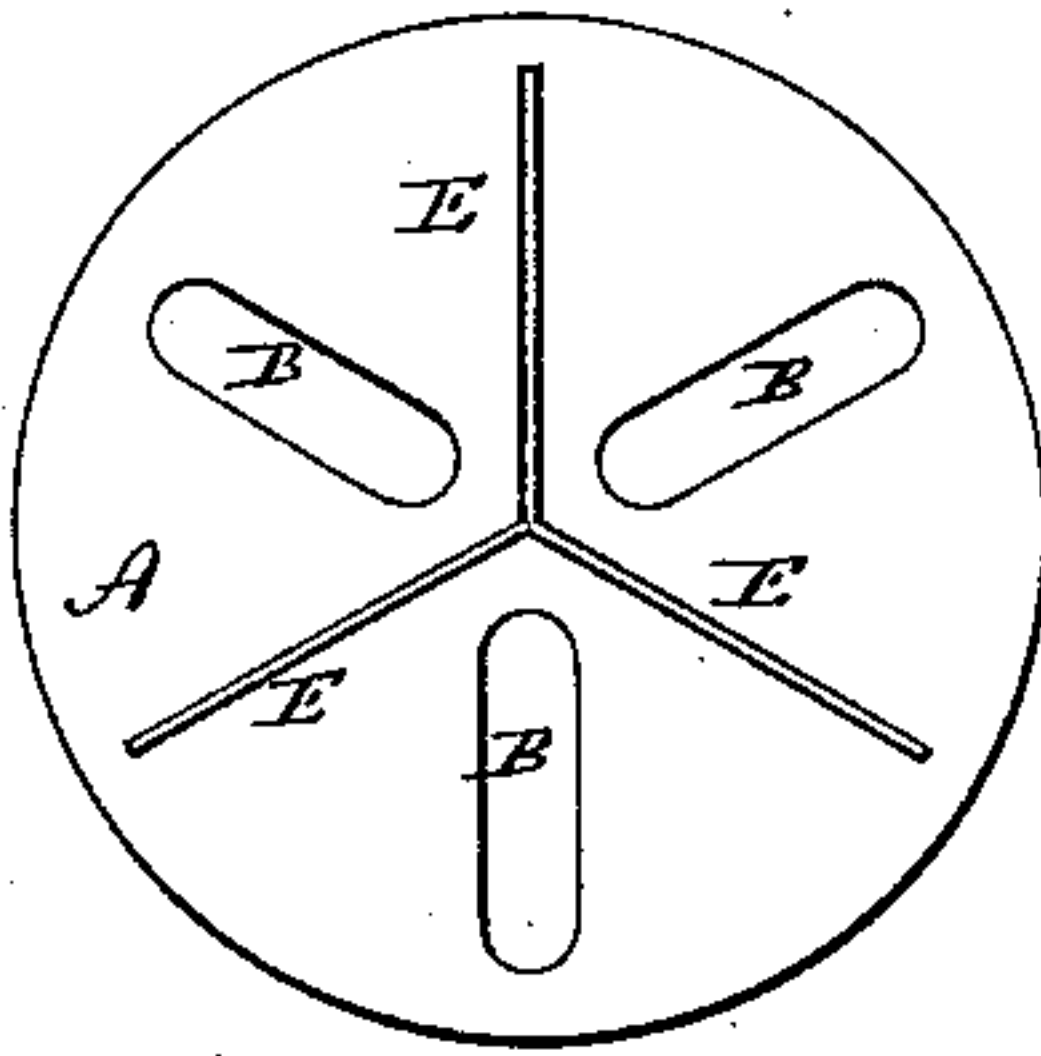


Fig. 9

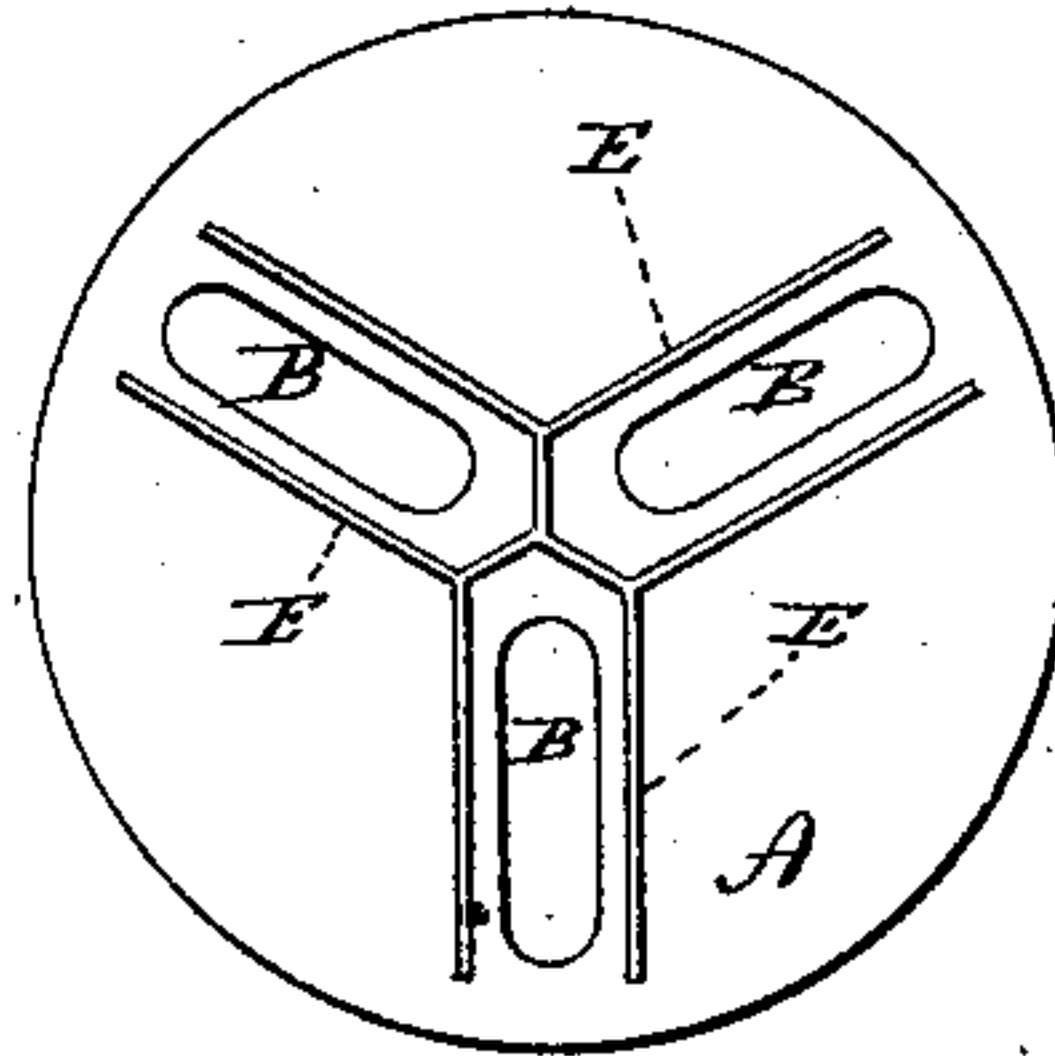
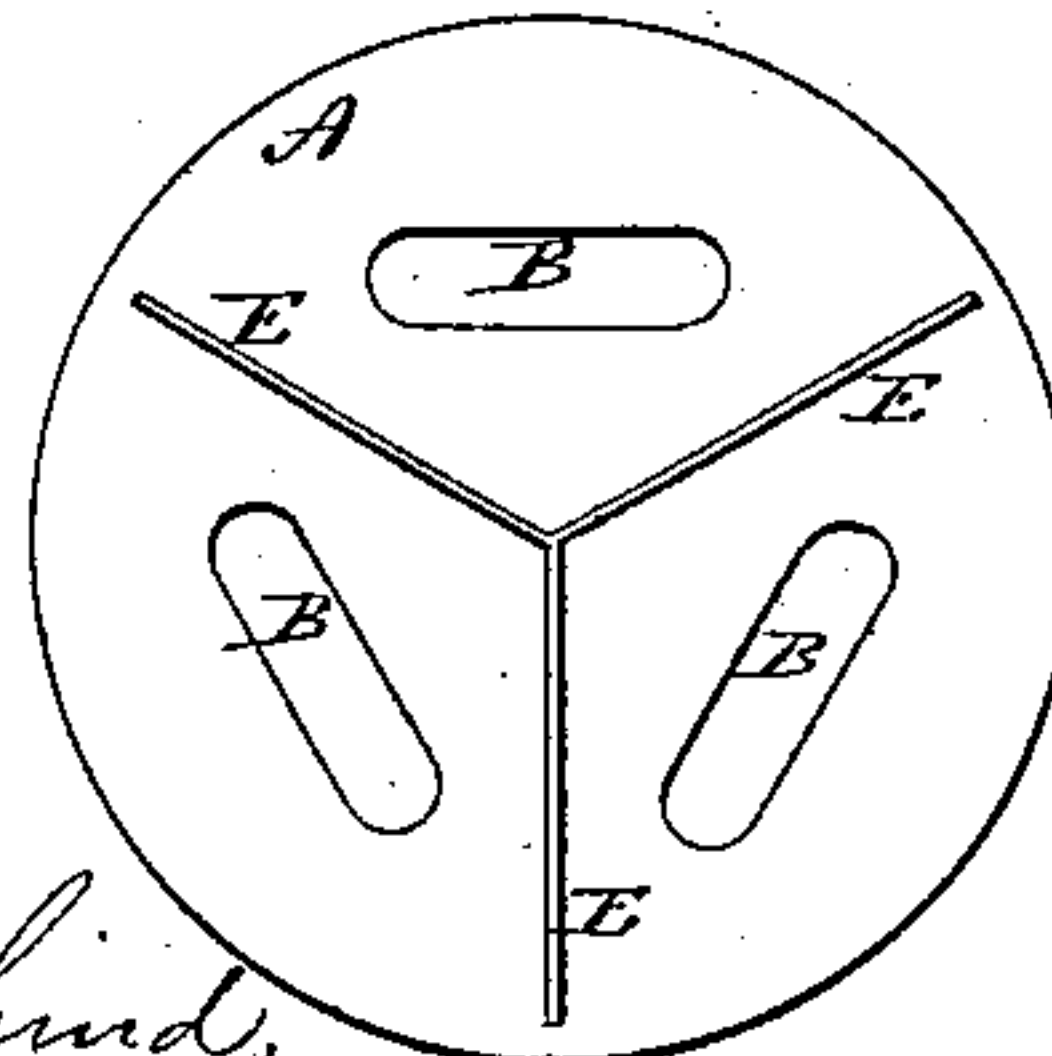


Fig. 10



Witnesses,  
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J. H. Thurway

# UNITED STATES PATENT OFFICE.

FRANK RHIND, OF MERIDEN, CONNECTICUT, ASSIGNOR TO EDWARD MILLER  
& COMPANY, OF SAME PLACE.

## LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 379,813, dated March 20, 1888.

Application filed April 25, 1887. Serial No. 236,038. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK RHIND, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamp-Burners; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which  
10 said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional side view of the cone, showing the partition; Fig. 2, a top view of the same; Fig. 3, a transverse vertical central  
15 section; Fig. 4, the partition detached; Fig. 5, a top view of the cone, showing the slot to receive the partition; Fig. 6, a vertical section showing the partition as above the bridge only; Figs. 7, 8, 9, and 10, modifications in the construction of the partition.  
20

This invention relates to an improvement in that class of lamp-burners in which two or more wicks are employed, each of which has an independent flame-opening in the cone, and  
25 more especially to those lamps of this class in which two wicks are arranged in planes parallel to each other, and such as commonly called "duplex burners." The flame-openings in the cone leave a bridge between them.  
30 The air from beneath the cone rises through the respective openings in independent currents between the flames and under a great heat, so that the air is very rapidly expanded above the bridge, and the independent currents coming together create a disturbance between the flames, which tends to prevent perfect combustion, cause unsteadiness of the flame, and consequent shortening of the flame.

The object of my invention is to avoid this  
40 difficulty; and it consists in a lamp-burner having two or more wick-tubes, and a cone constructed with independent flame-openings corresponding to said tubes, and so as to leave a bridge between said openings, with a vertical partition supported by said bridge, and  
45 extending upward therefrom between the flame-openings, as more fully hereinafter described.

In illustrating the invention, I first show

and describe it as applied to a duplex burner. 50  
I however show only the upper part of the burner, that being sufficient for the illustration of the invention.

A represents the cone, having the usual flame-openings, B B, over the corresponding  
55 independent wick-tubes C C below. D represents the bridge between the two flame-openings. On this bridge I arrange a vertical partition, E. This partition is best made of a thin piece of sheet metal, as seen in Fig. 4. Longi-  
60 tudinally through the bridge a slit, *a*, is cut, corresponding to the thickness and length of the partition E, and so that the partition may be set through the slit, and there supported by friction between the slit and the partition,  
65 which permits the adjustment of the partition up or down, as indicated in broken lines, Fig. 3, to any desirable extent between the base of the flames. This partition separates the two  
70 currents of air at the base of the flames, and holds them separate to a point so far above the base that the mingling of the currents is gradual, and the disturbance which the sudden mingling produces when the two currents  
75 come together directly over the bridge is avoided, and the flame becomes steady and combustion perfect.

The partition may be made fast to the bridge and only extend above, as seen in Fig. 6; but  
8c I prefer to extend it both above and below, as represented in Fig. 3, and so that it may be made adjustable. The partition may be formed as an integral part of the bridge by drawing the bridge into inverted-V shape, as indicated  
85 in Fig. 7.

In the case of burners having more than two tubes—say three—the bridge is arranged between the wicks accordingly, as illustrated in Fig. 8, which shows the three flame-openings in the cone as radial. The partition is made  
9c in the form of three wings radiating from the center to a sufficient extent to produce the desired result.

The partitions between the several openings may be extended from the dividing-line down  
95 each side the openings, as seen in Fig. 9; but these extensions are unnecessary, as the dividing-partitions radiating from the center are



all that is required; or, if the flames be arranged in a triangular position, as seen in Fig. 10, the same arrangement of partition as that shown in Fig. 8 will be employed.

5 I claim—

1. The herein-described improvement in burners having two or more wick-tubes, and in which the cone is constructed with independent flame-openings corresponding to said  
10 tubes, and so as to leave a bridge between said openings, a vertical partition supported by said bridge, and extending upward from the bridge between the flame-openings, substantially as described.

2. In a burner having two or more wick- 15 tubes, and a cone constructed with independent flame-openings corresponding to the respective tubes, and so as to leave a bridge between said openings, the said bridge constructed with a vertical slot between said open- 20 ings, combined with a partition adjustable vertically through said slot, substantially as described.

FRANK RHIND.

Witnesses:

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