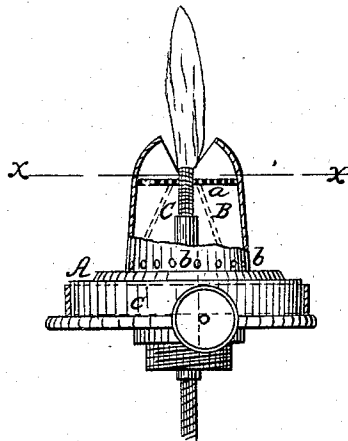


D. E. RUGG.  
Lamp Burner.

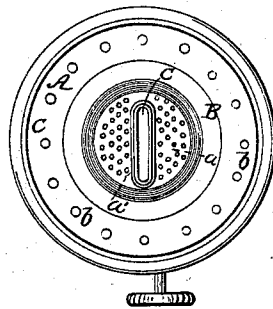
No. 86,694.

Patented Feb. 9, 1869.

*Fig. 1.*



*Fig. 2.*



*Witnesses:*

*Alex F. Roberts*  
*W. C. Ashkettle.*

*Inventor:*

*D. E. Rugg*  
*per Munroe*  
*Attorneys*

# United States Patent Office.

DATUS E. RUGG, OF SING SING, ASSIGNOR TO HIMSELF AND ALBERT C. KUCK, OF BROOKLYN, NEW YORK.

Letters Patent No. 86,694, dated February 9, 1869; antedated January 25, 1869.

## IMPROVEMENT IN LAMP-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, DATUS E. RUGG, of Sing Sing, in the county of Westchester, and State of New York, have invented a new and improved Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to a new and improved lamp-burner; and

It consists in constructing the burner in such a manner that the flame will be isolated from the wick-tube, and the latter prevented from conducting heat down to the lamp, as is the case with the ordinary burners in use.

The invention consists in having the cone or deflector of the burner provided with a perforated plate or wire-gauze partition, or inside cone, placed some distance above the top of the wick-tube, and having the wick extend or project above said plate or partition, so that a current of air will be made to pass between the wick and the plate, and the flame thereby prevented from extending down below the said partition, and, consequently, undue evaporation of the oil is prevented, as well as all danger of explosions.

In the accompanying sheet of drawings—

Figure 1 is a side view of my invention, partly in section.

Figure 2, a horizontal section of the same, taken in the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the body or main portion of the burner; B, the cone or deflector thereof; and

C, the wick-tube.

These parts, being of usual construction, do not require a special description.

Within the cone or deflector B, near its upper end, there is permanently secured a perforated or wire-gauze plate or inside cone, *a*, having an oblong slot, *a'*, made in it, rather larger in dimensions than the top of the

wick-tube C, and this plate *a* is some distance above the top of the wick-tube C, as shown clearly in fig. 1.

In using the burner, the top of the wick is projected upward, a trifle above the perforated plate or inside cone *a*, and the flame is not allowed to come in contact with the wick-tube, the perforated or wire-gauze plate *a* preventing it; and hence the wick-tube is prevented from getting heated, and conducting heat down to the fountain of the lamp, while the flame will be supplied with a requisite amount of air to insure proper combustion.

The perforated plate or cone *a*, it will be seen, in consequence of the current of air it induces, isolates the flame from the wick-tube, while, at the same time, it does not interfere with the proper supply of air to the flame.

By this improvement, therefore, the explosions produced by the common burner overheating the fluid, which not unfrequently attend the use of coal-oil, more especially those of the lighter grades, will be avoided.

Due provision is made for the passage of air through the burner to supply the flame, both above and within the cone or deflector, as indicated by the openings *b*, and the draught-chimney is retained on the burner by having an India-rubber band, *c*, fitted on the exterior of the burner, for the lower end of the chimney to fit over.

This rubber band will cause the chimney to be firmly retained in position, and, at the same time, prevents the contingency of the breaking of the chimney under the expansion and contraction of the same.

Having described my invention,

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

The isolating of the flame from the wick-tube of a lamp-burner, by means of a perforated or wire-gauze plate, or inside cone, *a*, placed within the cone or deflector B of the burner, and in relation with the wick-tube C, substantially as and for the purpose specified.

DATUS E. RUGG.

Witnesses:

ALEX. F. ROBERTS,

J. M. COVINGTON.