

J. O. HARRIS.

Lamp Burner.

No. 46,901.

Patented March 21, 1865.

Fig. 1.

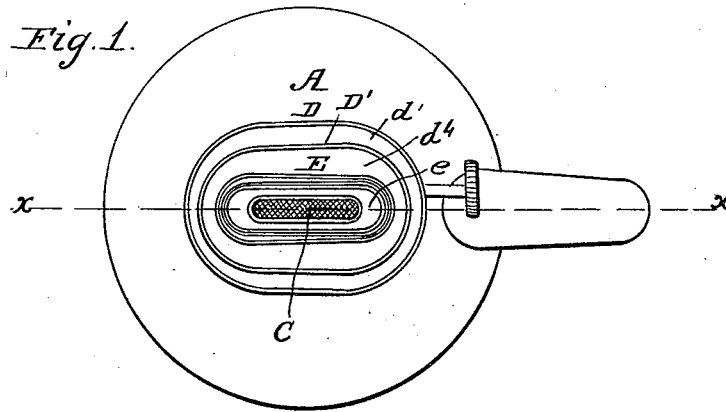
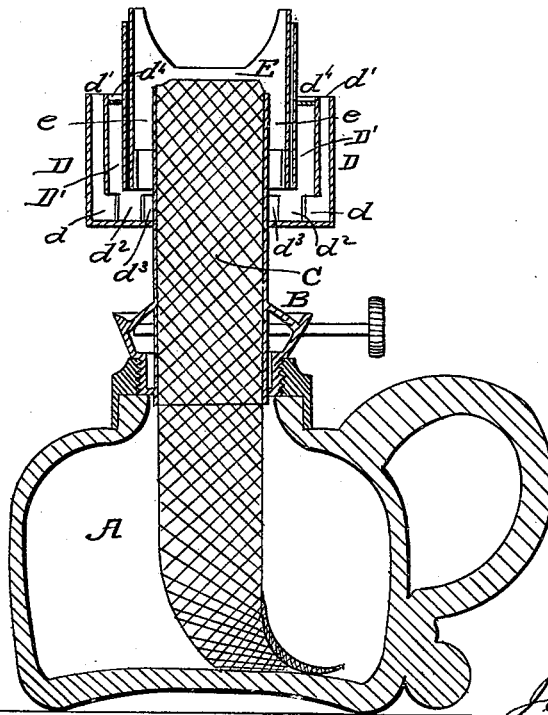


Fig. 2.



Witnesses:
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C. D. Du Bois

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN O. HARRIS, OF READING, PENNSYLVANIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 46,901, dated March 21, 1865.

To all whom it may concern:

Be it known that I, JOHN O. HARRIS, of Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Improvement in Lamps; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan or top view of a lamp with my invention applied. Fig. 2 is a vertical section in the line *x x*.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of this invention consists in combining two concentric cups placed in reverse positions, one within the other, so that the air to support combustion shall enter the burner from the top and descend therein before passing upward around the wick-tube. By these means the flame is protected from sudden lateral drafts, and the lamp adapted to burn successfully without a chimney.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A may represent a reservoir, B a cap therefor, and C a wick-tube, all of which may be of any suitable construction. D represents a jacket, which is secured upon the wick-tube C in the manner shown, and provided with a bottom, *d*, in the center of which is an opening to allow the wick-tube C to project upward through the same. D' represents an additional jacket, which is placed within the jacket D, and has the same general form as the latter. The jacket D' is somewhat smaller than the jacket D, and is placed within the latter in such position as to leave between the two a continuous uniform space, *d'*.

The jacket D' is formed on its under side with legs or supports, *d²*, which rest upon the bottom *d* of the jacket D, and serve to form apertures, *d³*, between said bottom *d* and the under side of the jacket D', for the purpose to be presently explained.

The jacket D' at top is closed in part by the plate *d⁴*, at the center of which is made an oblong opening for the reception of a tube, E, which can be composed of either a single or double shell, as may be preferred by the user. This tube E is of somewhat larger dimensions than the wick-tube C, in order that the air may pass freely between them in the space *e*, and the tube E occupies such a position that the upper terminus of the wick-tube C is at a point below the top of said tube E, so that the latter will thus partially constitute a shield for the flame to protect it from a lateral current or blast of air, by which it might be extinguished.

When the lamp is lighted, the rarefied air in the immediate vicinity of the flame is displaced by a supply from the interior of the jacket D', which supply passes into the lower end of the tube E and up through the space *e*, which distributes the air equally at each side of the flame. As the air is thus exhausted from the interior of the jacket D' its place is constantly filled by a quantity of air which passes from the space *d'* through the apertures *d³*, and thus a continual regular current ascends from below on all sides of the wick-tube.

This device may be applied to any lamp, will effectually prevent the extinction of the flame even when a lateral draft exists, and may be constructed at very little expense.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

The combination of the jackets D D', intermediate space, *d'*, apertures *d³*, and tube E, the whole being employed in connection with a wick-tube, C, in the manner and for the purposes herein set forth.

The above specification of my improved lamp-burner signed this 6th day of April, 1864.

JNO. O. HARRIS.

Witnesses:

C. L. DU BOIS,
C. D. SMITH.