(No Model.)

A. H. JONES.

CENTRAL DRAFT LAMP.

No. 476,541. Patented June 7, 1892.

Fig. 1.

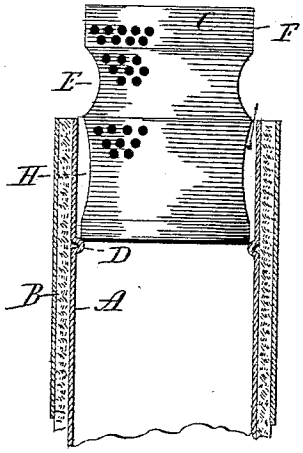


Fig. 2.

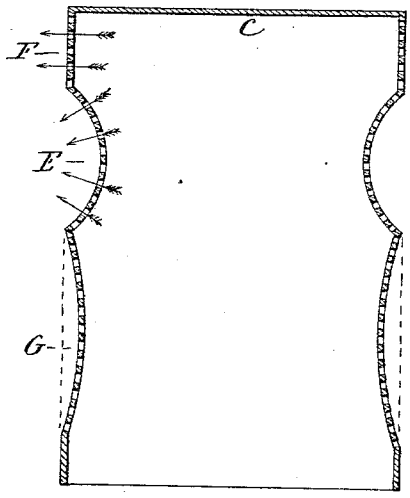
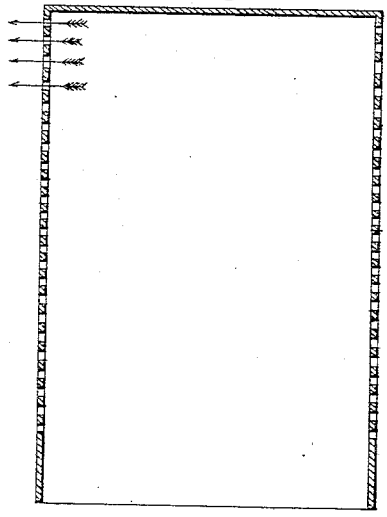


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

AUGUSTUS H. JONES, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE MERIDEN BRONZE COMPANY, OF SAME PLACE.

CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 476,541, dated June 7, 1892.

Application filed November 9, 1891. Serial No. 411,336. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS H. JONES, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Central-Draft Lamps; 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 said drawings constitute part of this specification, and respesent, in—

Figure 1, a vertical section of the draft-tube of a central-draft lamp with the wick thereon and showing a side view of the distributer; Fig. 2, a vertical section of the distributer detached, enlarged; Fig. 3, the perforated blank as prepared for the formation of the distributer as seen in Fig. 2, also enlarged.

This invention relates to an improvement in that class of lamps in which a tubular wick is employed surrounding a tube, which tube forms a flue for directing the air to the interior of the tubular flame, and particularly to those lamps of this class in which a perforated air-distributer is arranged at the upper end of the tube to equalize the distribution of air flowing through the central tube or flue to the flame, the object of the invention being a simple construction of distributer in which the perforations may be directed in different inclinations onto the flame; and the invention consists in the construction hereinafter described, and particularly recited in the claim.

A represents the central tube of a common central-draft lamp, and B the wick surrounding that tube, as usual in central-draft lamps.

C represents the air-distributer, which is drawn from sheet metal in cup form, as represented in Fig. 3, of an equal diameter from end to end, the upper end closed, the diameter of the cup being no greater than the inside of the tube, and preferably slightly smaller, so that when the open end is inserted into the central tube it may pass freely therein and rest upon suitable stops D, formed upon the inside of the tube. The sides of the cup are perforated while they are straight, as seen in Fig. 3. Then the perforated side of the distributer is reduced below the upper end and so as to form an annular concave groove E around the outside of the distributer, the metal being correspondingly forced inward or contracted. This inward bending of the perforated metal into concave shape changes the directions of the perforations from their horizontal positions, as seen in Fig. 3, to the inclined positions, as seen in Fig. 2, the inclination varying according to the concavity of the groove. The result of this grooving of the side wall is to change the direction of the air which flows through the tube to the flame from the horizontal direction which it would receive, as indicated by arrows in Fig. 3, to inclined directions, as indicated by arrows in Fig. 2, thus concentrating the air upon the flame the same as would be the case were the perforations made diagonally through the side walls of the straight distributer, with this advantage, that the concave annular groove around the distributer forms a chamber or increased space within the flame below the upper end of the distributer, where the numerous currents may mingle, and so as to come together upon the flame. The concave groove E starts from about the plane of the top of the central-draft tube and it terminates below the top of the distributer, so as to leave a straight perforated portion F of the distributer above the groove, through the perforations of which air will be directed horizontally onto the flame, as indicated by the arrows, Fig. 2. A second concave groove G is made, starting at the lower end of the groove E—that is, at the plane of the top of the central tube—and extending downward toward the bottom, so as to form an annular chamber H between the distributer and the central tube, the chamber opening upward at the lower edge of the annular groove E for the escape of air into the flame, as represented by the arrow in Fig. 1. This construction will permit a very considerable quantity of air within the chamber H, which will escape rapidly and under a considerable force, because of the contraction of the space at the upper end of the chamber, and thus tend to prevent the overflow of oil into the central-draft tube, commonly called "weeping."

I claim—

An air-distributer for a central-draft lamp,

consisting of a tube of somewhat less diameter than the internal diameter of the central draft tube, the distributer closed at its upper end, its side walls perforated and the sides constructed with an annular groove E, concave in vertical section upon its outside and so as to leave a plain perforated space between the upper edge of the said groove E and the top of the distributer, and also constructed with a second annular concave groove G below the groove E, the perforations extending through both the grooves, substantially as described.

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

AUGUSTUS H. JONES.

Witnesses:
E. A. MERRIMAN,
JAMES FITZGERALD, Jr.