

(No Model.)

J. C. MILLER.
CENTRAL DRAFT LAMP.

No. 478,802.

Patented July 12, 1892.

Fig. 1

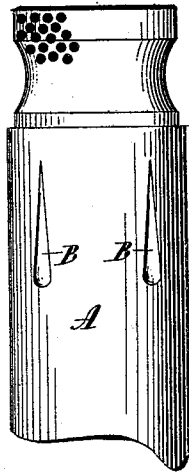


Fig. 3

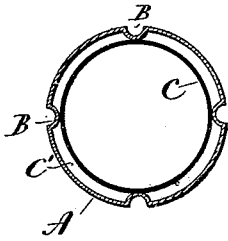
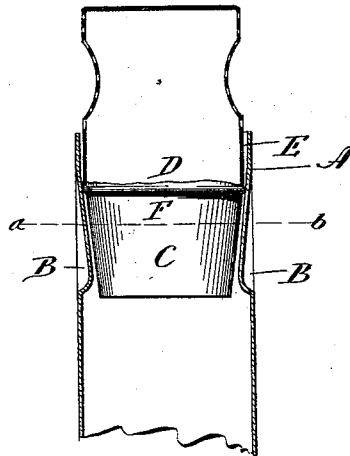


Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN C. MILLER, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE MATTHEWS & WILLARD MANUFACTURING COMPANY, OF SAME PLACE.

CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 478,802, dated July 12, 1892.

Application filed January 6, 1892. Serial No. 417,138. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. MILLER, of Waterbury, 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 represent, in—

Figure 1, a view in side elevation of a draft-tube and air-distributor constructed in accordance with my invention and assembled as in use; Fig. 2, a similar view in vertical central section; Fig. 3, a view in horizontal transverse section on the line *a b* of Fig. 2.

My invention relates to an improvement in draft-tubes and air-distributors for central-draft lamps, the object being to produce a simple construction in which the air-distributor is frictionally secured in place and in which the overflow of oil is avoided and currents of air are jetted upon the base of the flame, so as to produce a superior light.

With these ends in view my invention consists in the combination, with a draft-tube provided at its upper end with longitudinal inwardly-projecting inclined seats or ribs, of an air-distributor having its lower end tapered in accordance with the inclination of the said seats or ribs upon which it is supported.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, the upper end of the central draft-tube *A* is struck inwardly to form four longitudinal inwardly-projecting inclined seats or ribs *B*, which widen gradually from their upper to their lower ends and gradually increase in their inward projection in the same direction. While it is perhaps the most convenient and feasible way to form these seats or ribs by striking them inwardly from the tube, I do not limit myself to that construction for them. The lower end *C* of the air-distributor is tapered in accordance with the inclination of the said seats or ribs upon which it is supported, sufficient friction being developed between the said tapered portion

of the air-distributor and the ribs to hold it firmly in place. That portion *D* of the air-distributor lying between the upper end of the said tapered portion and the upper end of the draft-tube *A* is made enough smaller in diameter than the diameter of the said draft-tube to form an annular chamber *E*, which communicates at its lower edge with the compartments *C'*, virtually formed below it by means of the ribs before mentioned. The said compartments *C'*, which are in effect wide vertical flues, open into the draft-tube at a point at or near the lower end of the air-distributor and are broadest at their lower ends, growing gradually narrower until they reach the point where they open into the narrow annular chamber *E* aforesaid. By preference and as herein shown I form a rib *F* between the tapering and straight portions *C* and *D* of the air-distributor, in order to stiffen the same and prevent it from being possibly indented by the upper ends of the ribs in being pressed down into place. Otherwise than specified, the air-distributor may be of any approved construction. As herein shown, it at no place exceeds in diameter the diameter of its portion *B*, and is constructed with a broad groove extending around its upper portion.

By providing the draft-tube with inwardly-projecting inclined seats and tapering the lower end of the air-distributor, as described, I provide convenient, effective, and simple means of securing the distributor firmly in place. Furthermore, that portion of the air which in its upward progress through the draft-tube passes upward on the outside of the tapering lower end *C* of the air-distributor and enters into the compartments *C'*, before mentioned, is so increased in force in its passage through the said compartments, which taper from their lower ends upward, that it virtually is jetted into the chamber *E* formed between the draft-tube and the air-distributor at a point directly above the tapered portion of the latter, whereby any oil which may escape into the said chamber *E* is driven back again, while the air issuing from the said chamber *E* is forced onto the base of the flame in such a manner as to produce a very superior light.

I would have it understood that I do not

limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations therein as fairly fall within the spirit and scope of my invention.

I am aware that it is old to support an air-distributor upon a projection struck inwardly from the draft-tube in which it is placed and to provide for an upward draft of air between the outer surface of the distributor and the inner surface of the tube. I am also aware that a tapering distributor is old. I do not, therefore, claim any of these constructions broadly.

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

1. In a central-draft lamp, the combination, with a draft-tube provided at its upper end with longitudinal inwardly-inclined seats or ribs which gradually increase in their inward projection from their upper to their lower ends, of an air-distributor having its lower end tapered in accordance with the inclination of the said seats or ribs on which it is supported and its upper end closed and perforated, substantially as set forth, and whereby the said ribs form friction-seats for the distributor and divide the space between the distributor and tube into compartments or flues broadest at their lower ends, which lead into the draft-tube.

2. In a central-draft lamp, the combination, with a draft-tube provided at its upper end with longitudinal inwardly-projecting inclined seats or ribs which gradually increase in their inward projection from their upper to their lower ends, of an air-distributor having its lower end tapered in accordance with the inclination of the said seats on which it is supported and its upper end closed and perforated and made smaller than the diameter of the tube above said tapered portion, substantially as described, whereby the said ribs

form friction-seats for the distributor and the space between the distributor and tube is divided into an annular chamber, and a circular series of vertical flues located below the same and having their narrow upper ends opening into the said chamber, while their broader lower ends lead into the draft-tube.

3. In a central-draft lamp, the combination, with a draft-tube having its upper end struck inwardly to form longitudinal inwardly-projecting seats or ribs gradually increasing both in inward projection and in width from their upper to their lower ends, of an air-distributor having its lower end tapered in accordance with the inclination of the said ribs or seats on which it is supported, substantially as set forth, and whereby the said ribs form friction-seats for the distributor and divide the space between the same and the tube into a circular series of compartments or flues, which are broader at their lower than at their upper ends.

4. In a central-draft lamp, the combination, with a draft-tube having its upper end constructed with longitudinal inwardly-projecting inclined seats or ribs which gradually increase in their inward projection from their upper to their lower ends, of an air-distributor having its lower end tapered in accordance with the inclination of the said ribs and shouldered at the upper end of its said tapered portion, substantially as described, and whereby the said ribs form friction-seats for the distributor and divide the space between the same and the tube into a circular series of compartments or flues which are broader at their lower than at their upper ends.

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

JOHN C. MILLER.

Witnesses:

LUCIEN F. BURPEE,
GEO. G. BLAKESLEE.