

(No Model.)

R. L. BREWER.  
CENTRAL DRAFT LAMP.

No. 428,882.

Patented May 27, 1890.

Fig. 1.

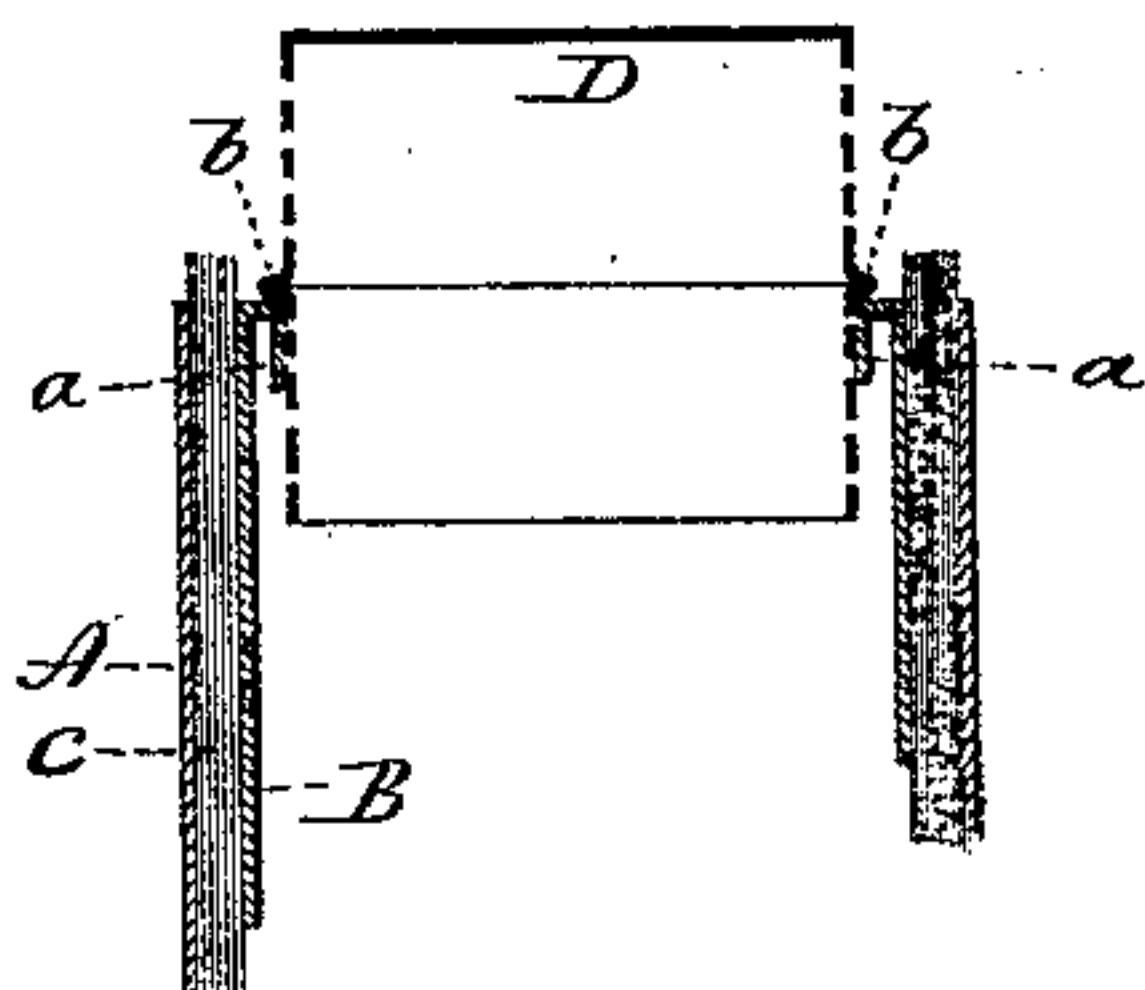


Fig. 2.

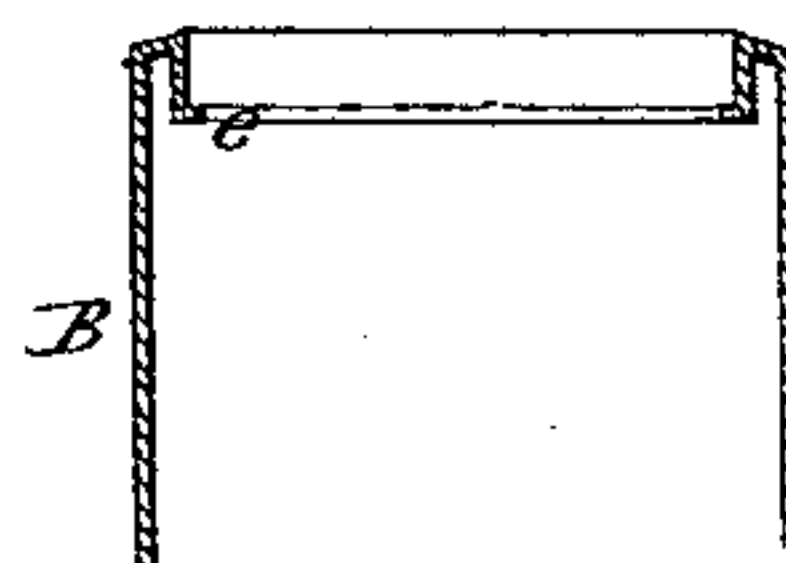


Fig. 3.

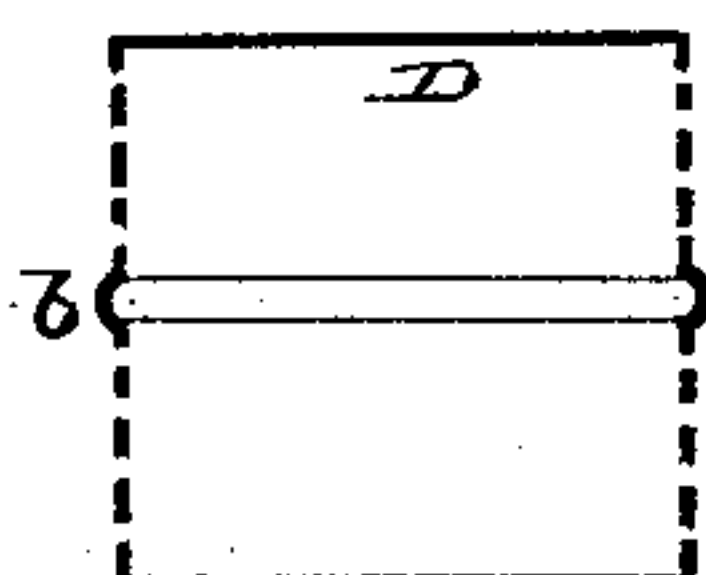
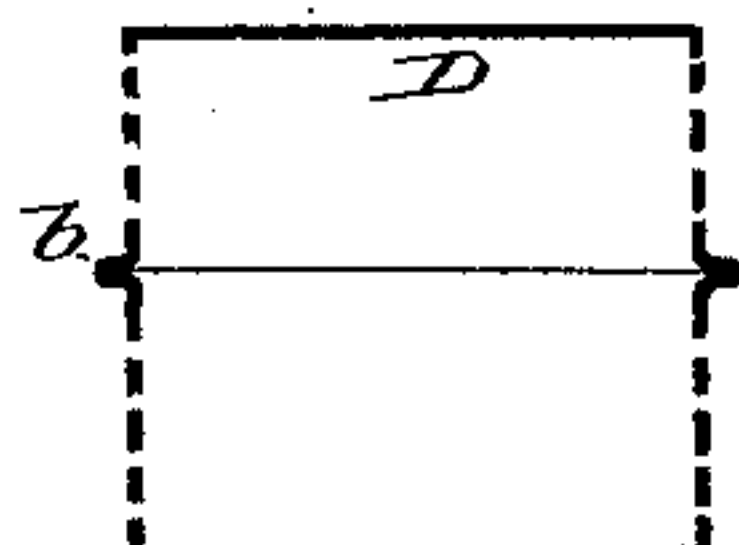


Fig. 4.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 428,882, dated May 27, 1890.

Application filed March 25, 1889. Serial No. 304,650. (No model.)

*To all whom it may concern:*

Be it known that I, ROLAND L. BREWER, 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 represent, in—

Figure 1, a vertical central section of so much of a burner as is necessary to illustrate the invention; Fig. 2, a modification in the formation of the enlarged surface of the upper end of the tube; Figs. 3 and 4, vertical sections representing the manner of forming the supporting-rib in the distributor.

This invention relates to an improvement in that class of lamps in which a wick surrounds a central tube, open from the bottom, and so as to admit air through the said central tube for the support of combustion, commonly called "Argand" or "central-draft" lamps.

In the usual construction the central tube, around which the wick stands, is necessarily thin, and at its upper edge presents only this thin edge between the wick and the air-passage. The result of this is that when the wick is in the up or burning position and the fount well filled the natural flow of the oil through the wick is frequently greater than the consumption, so that the oil rising to the top of the wick comes to the end of the inner tube, and that being thin permits the easy escape of the oil from the wick side of the tube over the end of the tube to the inside of the tube, whence it naturally flows downward.

In many of these lamps drips are provided at the lower end of the tube to receive such overflow of the oil. This difficulty is more marked in the class of lamps of the type commonly known as the "Rochester" lamps, in which a perforated thimble is arranged in the upper end of the inner tube, and, extending upward, is perforated above the tube for the distribution of air into the flame. This thimble substantially fits or stands in close relation to the inside of the central tube and forms an easy conductor for the oil over the

end of and down into the central tube between the outer surface of the said thimble and the inner surface of the central tube.

The object of my invention is to prevent the overflow of the oil.

I have found that the overflow is practically due to the very thin edge of the central tube, and that if a substantially horizontal surface be formed at the upper end of the tube inside the wick the flow of oil will not pass over that surface and so as to reach the air-distributor, but that the oil will be consumed before it can reach the inner surface of the tube or make contact with the distributor. My invention therefore consists in constructing the central tube with an inward annular projection at its upper end, producing substantially a horizontal surface on the upper end of the tube between the wick and the air-distributor, combined with a tubular air-distributor, closed at its upper end, and its side walls perforated and constructed with a closed annular rib adapted to rest on the said inward projection of the upper end of the tube, as more fully hereinafter described.

In illustrating the invention I show only so much of a burner as is necessary to its understanding.

A represents the outer tube, and B the central tube; C, the wick arranged between the said two tubes in the usual manner. The inner tube is constructed in the usual manner; but instead of the tube extending of uniform thickness to its upper end, I construct the tube at the upper end with an inward projection *a*, and so as to present a substantially horizontal flat surface at the upper end of the tube, considerably greater than the thickness of the tube itself. This projection may be made by turning the upper end of the tube inward and downward, as seen in Fig. 1, it only being essential to the invention that the upper end of the tube shall have an inward projection at its upper end, which will present a broad surface in substantially a horizontal plane. A slight inclination of the upper surface, rising from the wick, may be desirable—such as seen in Fig. 2; but practically a substantially horizontal surface accomplishes the result in a satisfactory manner.



D represents the air-distributor. This is made of a diameter corresponding to the internal diameter of the projection *a*, and so as to substantially fit therein. It is closed at its upper end and its sides perforated in the usual manner. To support the distributor in the proper relation to the upper end of the tube, it is constructed with an annular rib *b*. This rib is formed, as seen in Fig. 3, by first throwing out an annular bead *d*, and then closing that bead, as seen in Fig. 4, so as to form a thin annular rib just sufficient to take a bearing on the inward projection *a* around the upper end of the tube. The inward projection *a* may be constructed with a flange *e* at its lower edge, as seen in Fig. 2, upon which the distributor may rest.

I claim—

In a central-draft lamp, the central tube constructed with an inward annular projection at its upper end, and so as to form a surface on the upper end of the tube greater than the thickness of the tube, combined with an air-distributor D, closed at its upper end, its side walls perforated, and of a diameter corresponding substantially to the internal diameter of the said projection, the said distributor constructed with an annular closed rib *b*, adapted to rest upon the upper surface of the said projection, substantially as described.

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Witnesses:

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