(No Model.)

G. W. WOODWARD.

LAMP.

No. 386,861. Patented July 31, 1888.

Fig. 1.

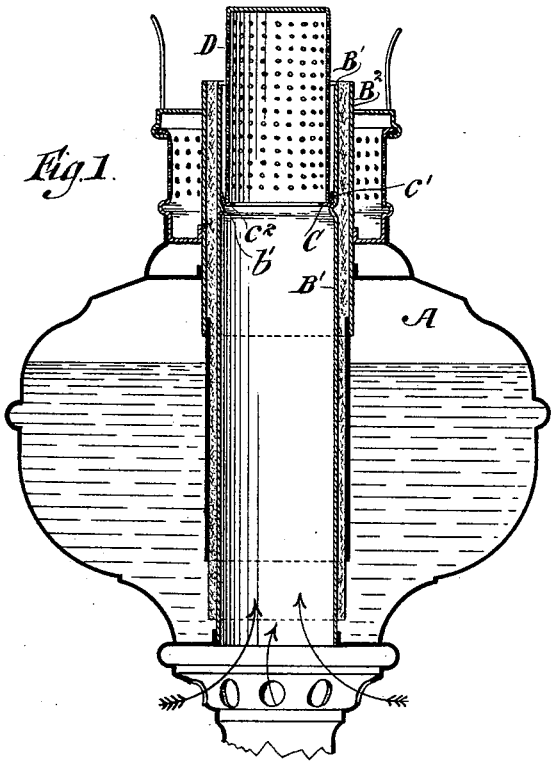


Fig. 2.

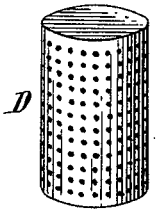


Fig. 3.

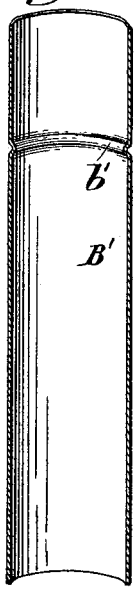


Fig. 8.

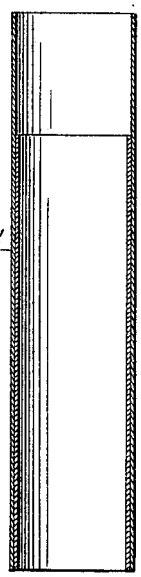


Fig. 6.

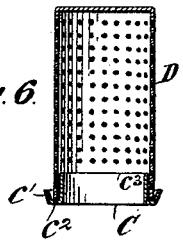
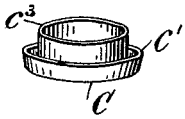


Fig. 5.



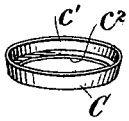


Fig. 4.

Fig. 7.

Witnesses
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Inventor
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by his attorneys
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UNITED STATES PATENT OFFICE.

GEORGE W. WOODWARD, OF BROOKLYN, ASSIGNOR TO THE ANSONIA BRASS AND COPPER COMPANY, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 386,861, dated July 31, 1888.

Application filed October 31, 1887. Serial No. 253,831. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WOODWARD, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Lamps, of which the following is a specification.

This improvement relates to Argand lamps of the kind which have combined with their annular wick-tubes thimbles for receiving and distributing the central draft of air.

My improvement consists of a novel construction of the thimble and in means for supporting the same.

In the accompanying drawings, Figure 1 is a central vertical section of a portion of a lamp of the kind referred to and embodying my improvement. Fig. 2 is a perspective view of the thimble which is comprised therein. Fig. 3 is a perspective view of a central longitudinal section of the inner shell of the annular wick-tube of the lamp. Fig. 4 is a perspective view of a ring which is combined with said tube and serves to support the thimble. Fig. 5 is a perspective view of another ring-support slightly different from the ring illustrated in the preceding figure. Fig. 6 is a vertical section of the ring shown in Fig. 5 and a thimble supported thereby. Fig. 7 is a perspective view of a spider or gridiron support, which may be used as a substitute for the rings. Fig. 8 is a central vertical section of the inner shell of the annular wick-tube of the lamp made in a somewhat different way from that shown in Figs. 1 and 3.

Similar letters of reference designate corresponding parts in all the figures.

A designates the oil reservoir or fount of the lamp. It may be of any suitable construction.

B' B^2 designate the annular wick-tube, composed of two cylindric shells arranged concentrically one within the other. Both shells extend above the reservoir or fount. The inner shell extends through the bottom of the reservoir or fount and receives air from the central draft for the inner surface of the flame. The outer shell does not extend to the bottom of the reservoir or fount, and therefore leaves the circular wick, which fits between the two tubes, exposed within the reservoir in the usual manner to receive oil therefrom. The inner tube is provided with a bead, b', which, as shown in Figs. 1 and 3, may be produced by swaging or creasing. As shown in Fig. 8, this stop is formed by fitting another tube snugly within the tube B'. It extends inwardly and serves to sustain within the tube a ring or support, C. This ring or support, as shown in Figs. 1 and 4, consists of a vertical portion, c', and a flat horizontal portion, c^2. As shown in Figs. 5 and 6, it has extending upwardly from the inner edge of the horizontal portion c^2 a flange, c^3. The vertical portion c' is preferably flaring, so as to be internally of smaller diameter at the lower extremity than at the upper extremity. It fits snugly within the inner shell of the wick-tube and rests upon the bead or stop b' thereof. This ring may be secured in place, if desired, by solder; but this will not generally be necessary, because the flaring vertical portion c' will wedge against the bead or stop b' sufficiently to be maintained securely.

D designates a thimble of cylindric form from end to end. It is open at the bottom, but closed at the top. Its top is imperforate, but its cylindric portion is perforated from the upper end nearly to the lower end. The lower portion of this thimble extends down within the inner shell of the wick tube. Its lower edge rests upon the horizontal portion c^2 of the ring C, and as this horizontal portion is flat the thimble will be sustained by it in an upright position. The vertical portion c' of the ring may serve to center the thimble in its proper position, and if the ring be constructed as shown in Figs. 5 and 6 the portion c^3 may also serve this purpose. The thimble, however, is entirely loose and is not intended to be made so as to be capable of vertical adjustment. It is not intended to be made to fit tightly either in the ring C or in the inner shell of the wick-tube.

A thimble constructed as I have described and supported within the inner shell of the wick-tube in the manner explained is very desirable, because all of the air ascending through the inner shell of the wick-tube will be caused to pass up into the thimble to be distributed in numerous jets by said thimble;

also, because the thimble will be absolutely uniform at all portions of its circumference, and will have no projections or irregularities apt to produce eddies in the current of air ascending from it.

The spider or gridiron support (shown in Fig. 7) has the ends of its arms turned upwardly and may be sustained by the bead or stop b' of the inner shell of the wick-tube. The upturned ends of the arms will correspond in function to the flange c' of the ring C, previously described. The horizontally-extending portions of these arms will serve to sustain the thimble, the latter being adapted to rest thereupon in the same manner as upon the horizontal portion c^2 of the ring C, previously described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an Argand lamp, the combination of a support fitting within the inner shell of the wick-tube and having a vertical portion fitting the inner shell of the wick-tube and a horizontal portion, and a thimble fitting said support so as to be centered in and sustained thereby, substantially as specified.

2. In an Argand lamp, the combination of a support consisting of a vertical portion fitting the inner shell of the wick-tube, a horizontal portion and an upright inner portion, and a thimble resting upon the horizontal portion of the support and centered by the upright portion thereof, substantially as specified.

GEORGE W. WOODWARD.

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