

(No Model.)

C. S. UPTON.
ARGAND LAMP.

No. 427,207.

Patented May 6, 1890.

Fig. 1.

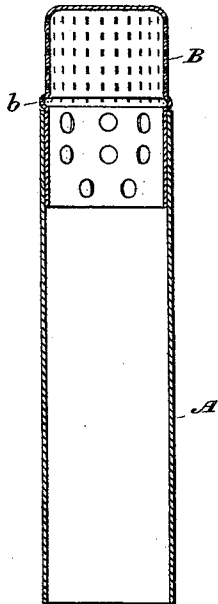


Fig. 2.

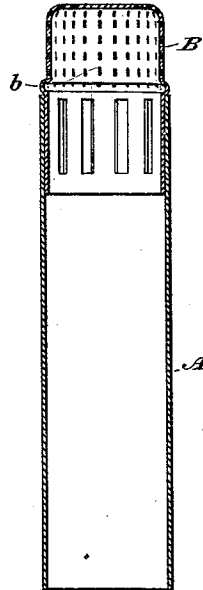
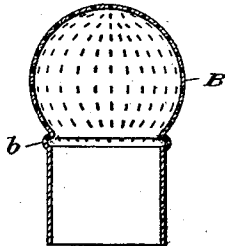


Fig. 3.



WITNESSES:

E. B. Rolton

S. Smith

INVENTOR:

Charles S. Upton

BY *W. W. Canfield*

his Attorney.

UNITED STATES PATENT OFFICE.

CHARLES S. UPTON, OF NEW YORK, N. Y.

ARGAND LAMP.

SPECIFICATION forming part of Letters Patent No. 427,207, dated May 6, 1890.

Application filed October 11, 1887. Serial No. 252,099. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. UPTON, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Argand Lamps, of which the following is a specification.

My invention is an improvement in Argand lamps, and relates particularly to that class of said lamps in which a perforated air-distributor is employed in combination with the central draft-tube for the purpose of breaking up and properly distributing and directing the central air-current, the object being to simplify the construction and render the same more durable, economical, and effectual, and also to provide means whereby the overflow of oil from the wick-chamber into the central air-tube is prevented.

The invention consists in the construction, arrangement, and combination of parts hereinafter described and claimed.

In the following description reference is to be had to the accompanying drawings, in which similar letters of reference indicate like or equivalent parts wherever found throughout the several views.

Figure 1 is a central vertical section of the central tube of an Argand lamp with my improvement attached. Fig. 2 is a similar section of a modification thereof, and Fig. 3 a section of a modified form of the distributor.

A indicates the draft-tube, and B the perforated air-distributing cone or thimble, which I employ.

The air-distributor B is formed from a single piece of metal, being stamped into shape from a blank of the proper size and shape, prepared in the usual way.

b is an outwardly-projecting bead or stop, swaged in the metal of the distributor at the time the same is stamped into form. That portion of the air-distributor below the bead *b* which may entirely surround the distributor is so formed as to fit within the central draft-tube, and is provided with large perforations or vertical slots, as shown in Figs. 1 and 2, in order to prevent the conduction of heat to the lower part of the central tube, and bead *b* should be of such depth as to rest upon the top and not extend beyond the outer edge thereof far enough to interfere with the proper

elevation of the wick, which, as is well known, surrounds the central tube in this class of lamps.

The walls of the distributor above the bead are finely perforated, as shown in Fig. 1; or both the side walls and top may be perforated, as shown in Fig. 2, and the bead itself may be perforated, if desired. In Fig. 1 the distributor is substantially the same size both below and above the bead. In Fig. 2 the air-distributor or perforated portion thereof is contracted above the bead, being somewhat smaller in cross-section than that portion which fits within the air-tube, while in Fig. 3 I have shown the air-distributor as substantially globular in form, these features being immaterial and depending largely upon the size and shape of the chimney employed.

Heretofore when the air-distributor was placed inside of the central tube in this class of lamps it has been necessary to provide the central tube with a bead on its inner surface on which the distributor would rest, and to provide the distributor with means which would act in connection with the bead to hold the distributor in place, it being necessary to keep it in a certain predetermined position in order to obtain perfect combustion, and to provide against its lateral movement, and also against the possibility of its being inserted too far or not far enough within the tube. By my construction the multiplicity of means to accomplish this result is avoided. The draft-tube is formed of the same size throughout from ordinary tubing. The air-distributor is so formed as to hold itself firmly in place when once inserted within the tube, and these lamps and distributor being made of certain standard sizes the cone may be made as an independent article of manufacture and applied to any or all lamps of this class.

In Argand lamps, generally, the oil is continuously being drawn up by capillary attraction, whether the lamp is or is not burning, and a portion thereof overflows the top of the inner tube and runs down within the same, thereby soiling more or less the outside of the lamp if an Argand burner simply be used, or the table or other support upon which the lamp may be placed, if a central-draft lamp, or one in which the air-tube extends through the oil-reservoir, is employed.

Many means have been resorted to to avoid this difficulty, all more or less expensive and most of which have proved ineffectual. I have found that the bead *b*, formed upon the outer surface of the air-distributor and resting upon the top of the inner tube, the parts being closely fitted, is a preventive of this overflow, both when the lamp is in use and when it is not, the connection between the bead and the tube being so close that the oil cannot ordinarily pass through, and the bead serving to press the top of the wick away from the inner tube, and thus forming a chamber or space between the same in which the oil is retained. It is evident, however, that the lower portion of the air-distributor need not fit the inner tube of the lamp as closely as above set out in order for it to serve as an air-distributor, as hereinbefore stated.

I am aware that Argand lamps having air-distributors substantially of the general form of that shown and described herein have heretofore been used, also that such lamps have been provided with means to prevent the overflow of oil within the central or inner air-tube, and do not broadly claim such construction; but,

Having fully described my invention, its construction, and operation, what I do claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the central tube of an Argand lamp, of an air-distributor, the lower open end of which fits within the upper end of the central tube, said distributor being provided with an outwardly-projecting bead, which rests upon the top of said tube, that portion of the distributor immediately above the bead being of no greater diameter than the central tube of the lamp, substantially as shown and described.

2. The combination, with the central tube of an Argand lamp, of an air-distributor, the lower open end of which fits within the top of said tube, said distributor being provided with an outwardly-projecting bead, by which it is retained in position on the tube, and that portion of the distributor above the bead being of less diameter than the central tube of the lamp, substantially as shown and described.

3. The combination, with the central tube

of an Argand lamp, of an air-distributor, the lower end of which fits within the central tube, said distributor being provided with a bead, by which it is retained in place, that portion of the distributor immediately above the bead being contracted to a diameter less than that of the bead, substantially as shown and described.

4. The combination, with the central tube of an Argand lamp, of an air-distributor, the lower end of which fits within the upper end of the tube, said distributor being provided with an outwardly-projecting bead, which closely fits and rests upon the top of the tube, and the walls of the distributor above the bead being perforated, substantially as shown and described.

5. The combination, with the central tube of an Argand lamp, of an air-distributor, the lower end of which closely fits within the top of said tube, said distributor being provided with an outwardly-projecting bead, which rests upon and closely fits the top of the tube, the walls of the distributor above the bead being globular in form and perforated, substantially as shown and described.

6. An air-distributor for Argand lamps, consisting of a thimble or cone provided with an outwardly-projecting bead, which rests when in use upon the central tube of the lamp, the portion of the distributor below the bead being so formed as to closely fit within the central tube, and the side walls of that portion above the bead being perforated, substantially as shown and described.

7. The combination, with a central tube of an Argand lamp, of an air-distributor, the lower end of which fits within the upper end of the tube, the distributor being provided with an outwardly-projecting bead, by which it is retained in place at the top of the tube, and the walls of the distributor above the bead being perforated, substantially as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 5th day of October, A. D. 1887.

CHAS. S. UPTON.

Witnesses:

DANIEL E. DELAVAN,
FRANK C. F. KNAAK.