

(No Model.)

L. HENKLE.

LAMP.

No. 365,996.

Patented July 5, 1887.

Fig. 1.

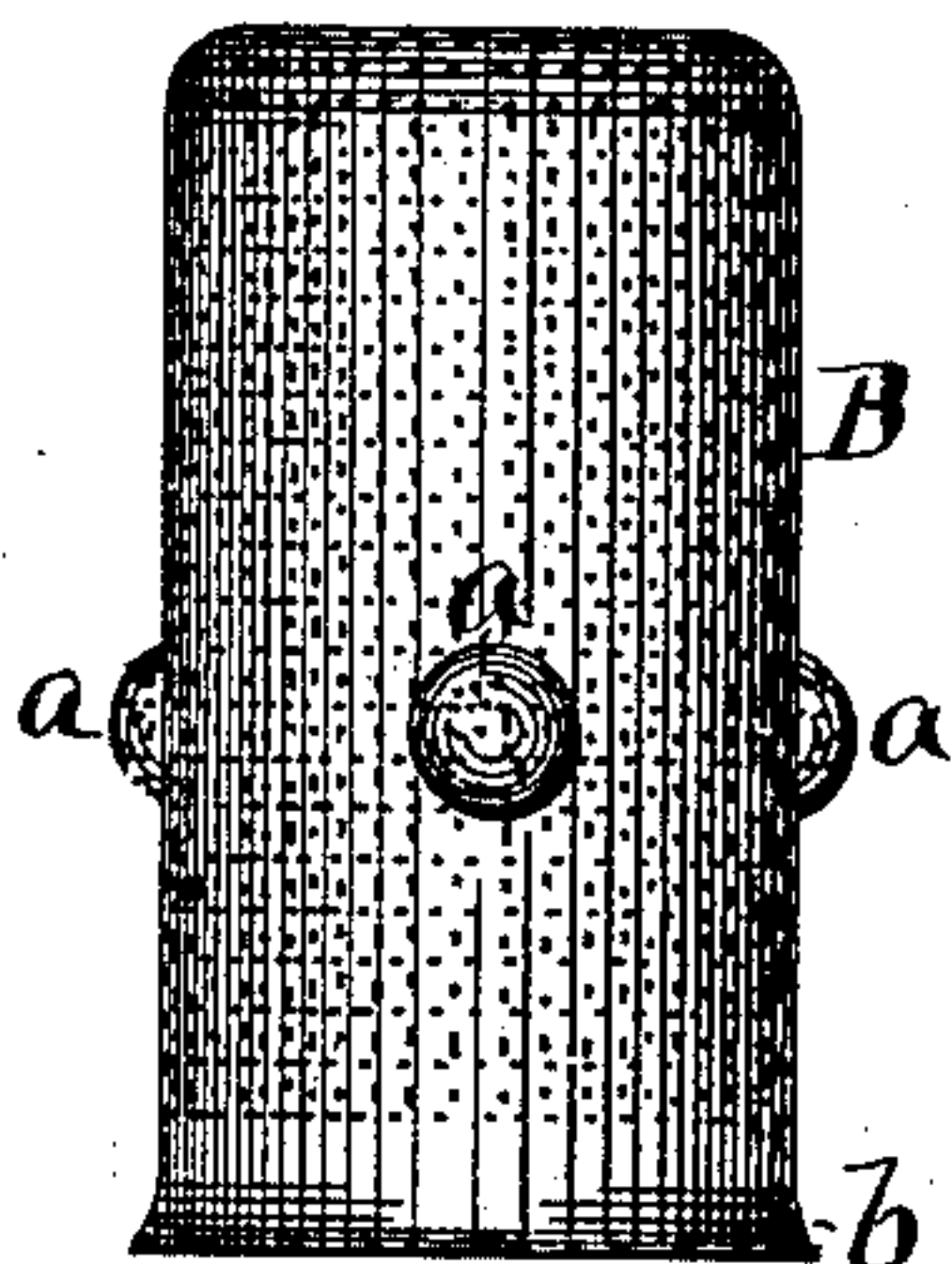


Fig. 3.

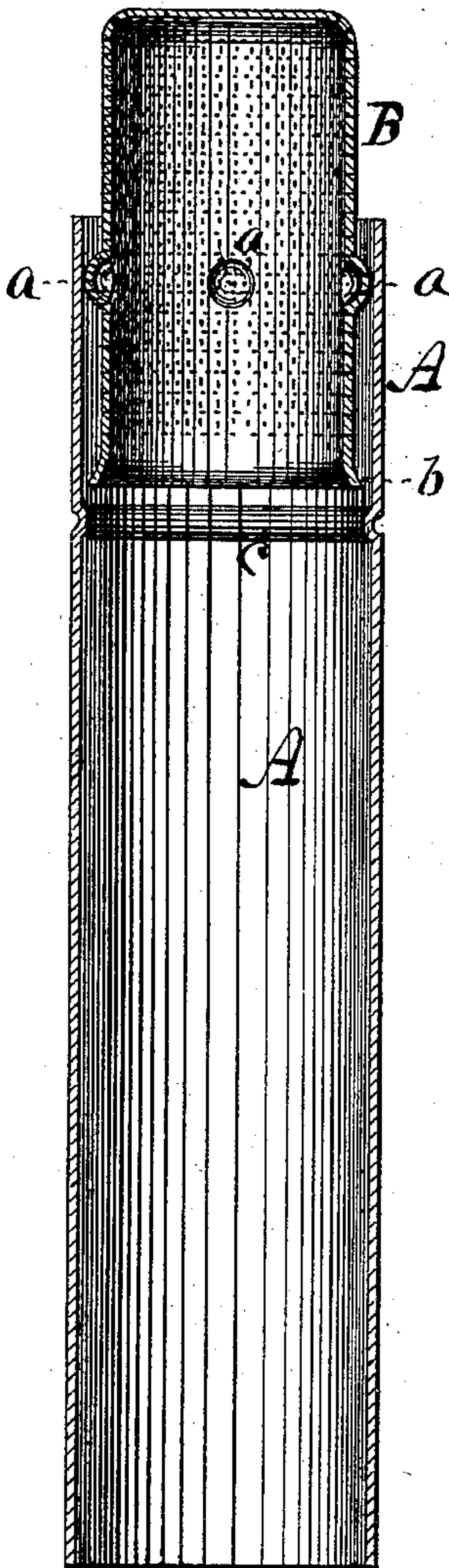


Fig. 2.

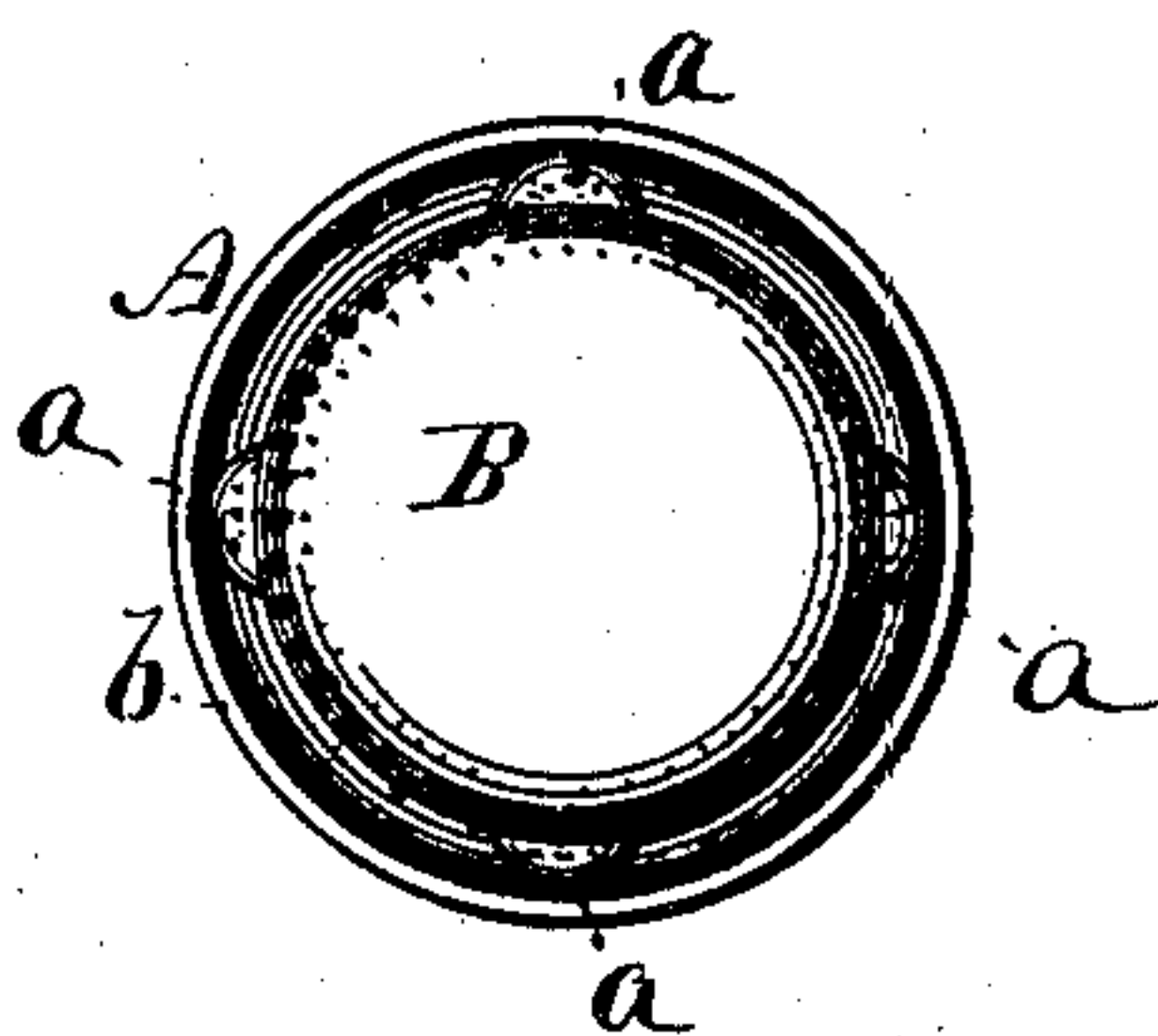


Fig. 4.

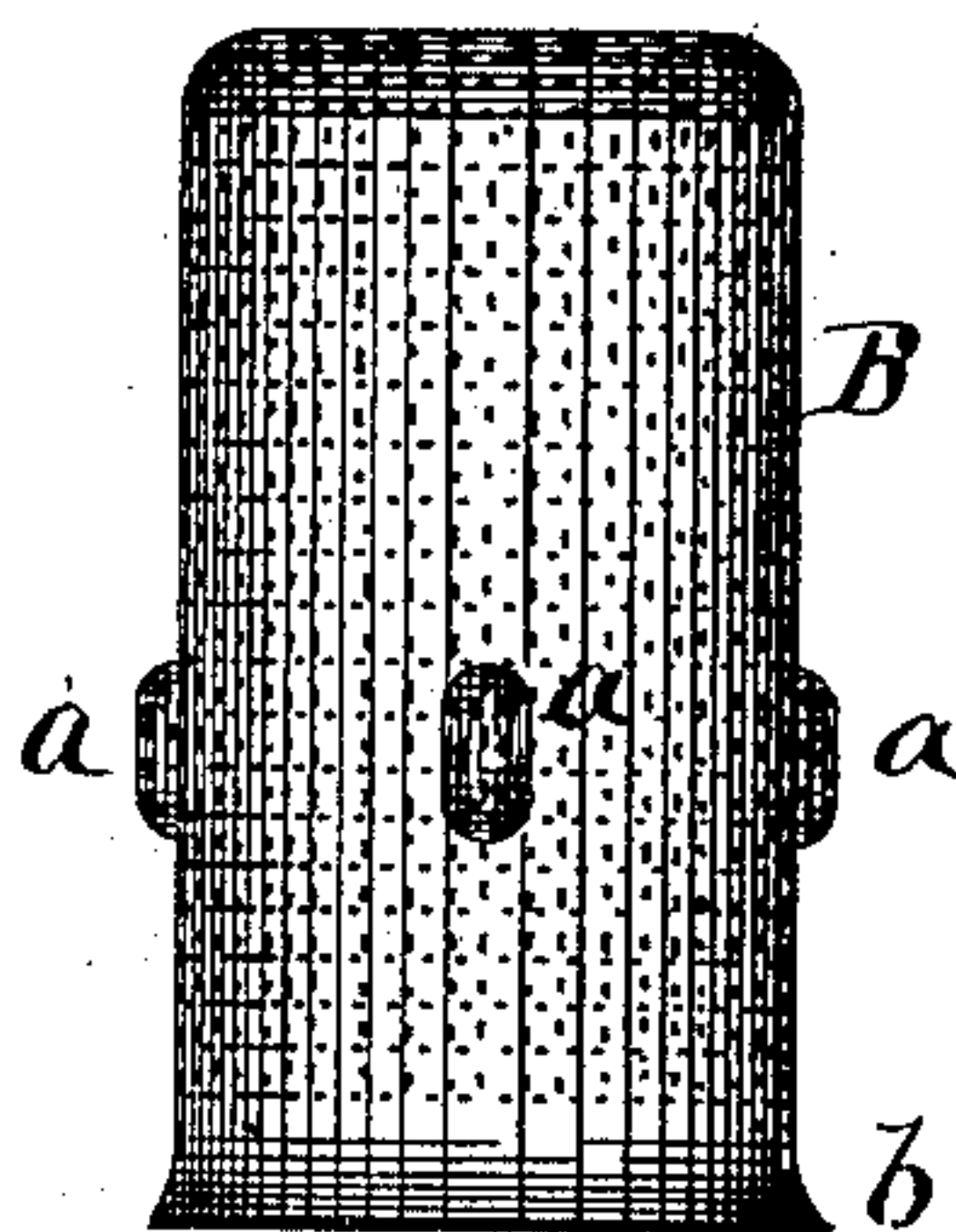
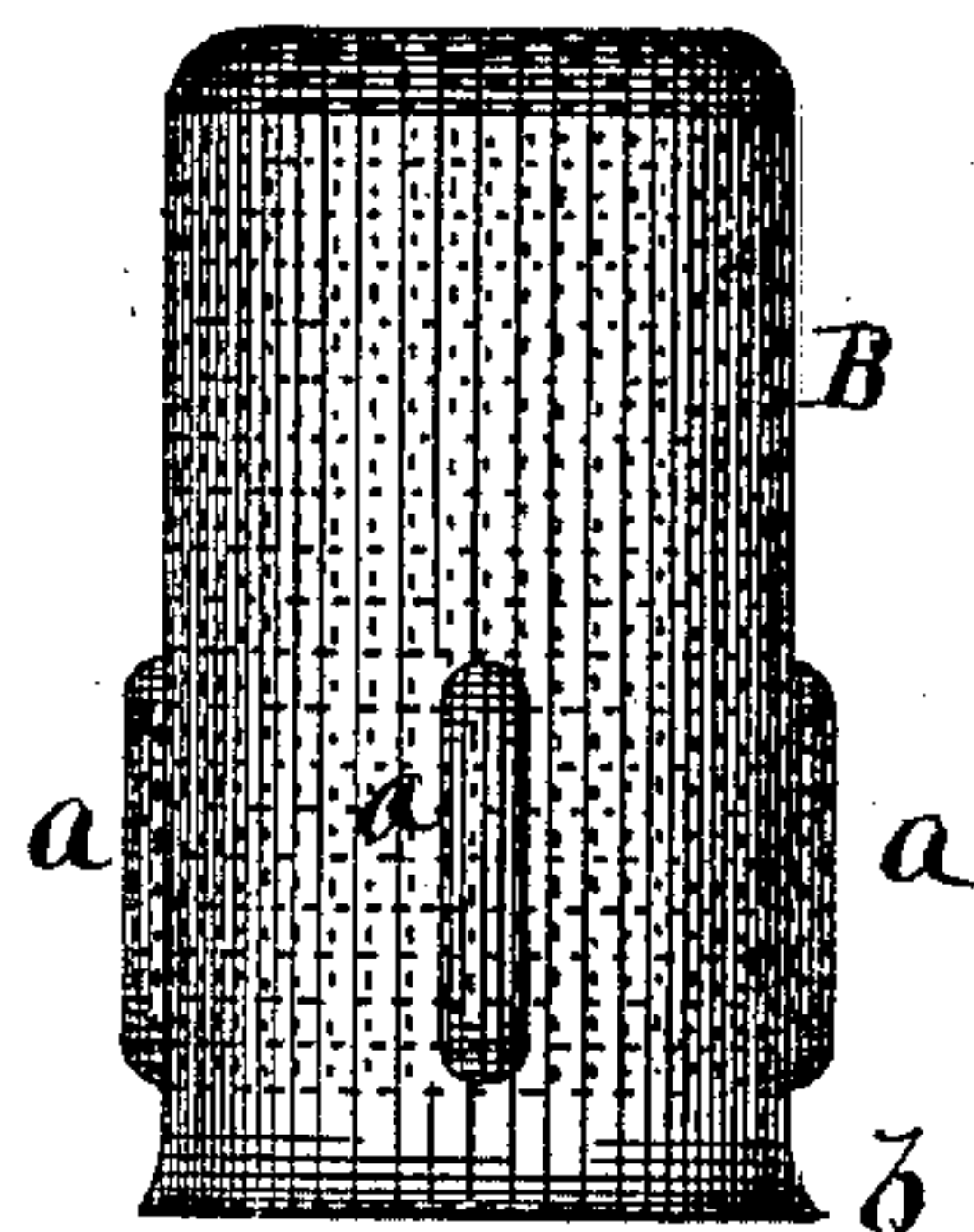


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

LEONARD HENKLE, OF ROCHESTER, ASSIGNOR TO CHARLES STANFORD
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LAMP.

SPECIFICATION forming part of Letters Patent No. 365,996, dated July 5, 1887.

Application filed December 9, 1885. Serial No. 185,128. (No model.)

To all whom it may concern:

Be it known that I, LEONARD HENKLE, of Rochester, in the county of Monroe and State of New York, have invented an Improvement in Lamps; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

This invention has been in part embodied in an English Patent No. 2,221, granted to Julius Boulton on communication by me, and dated the 26th of January, 1884.

My improvement relates to the construction of the perforated "cones," such as described in the Letters Patent No. 292,114, granted to me January 15, 1884, for directing the inner draft of Argand lamps upon the flame to improve the combustion of the oil vapor or gas. This cone, preferably and generally made of finely-perforated sheet metal, is removably inserted in the upper end of the inner draft and wick tube; and, since it is made somewhat smaller in exterior diameter than the interior diameter of the said tube, so as not to be in contact therewith, and thereby not to impart its heat to the tube, and so as to allow the draft-air to pass through it throughout its entire length, as far as practicable, my invention consists in the means of holding the cone steadily and adjustably in the tube, and thus allowing the difference in diameters of the two parts, as specified.

The invention consists in outward projections or bosses formed on the cone by swaging the metal of the same outward, substantially as hereinafter set forth.

The invention also consists in forming the cone or thimble of a single piece of metal and providing it with an imperforate top or cap and an outwardly-projecting retaining flange or rim, which flange or rim seats upon a stop or a bead formed upon the central draft-tube, and in other features of construction, hereinafter described and claimed.

Figure 1 of the accompanying drawings represents a side view of a cone formed with my improvement; Fig. 2, a top view of the same; Fig. 3, a central vertical section of the cone placed in the inner draft and wick tube; Fig.

4, a side view of a cone with a modified form of the invention; Fig. 5, a side view of a cone with another modified form of the invention.

Like figures designate corresponding parts in all of the figures.

In the drawings, A represents the inner draft and wick tube, and B the perforated cone of an Argand lamp. In order to hold the cone of smaller diameter in the tube of larger diameter, so as to be retained centrally therein, several small bosses or outward projections, *a*, are swaged or stamped in the cone from the inside outward, or otherwise formed, the outermost part of the same being preferably rounded and of just sufficient projection to touch the inner surface of the tube, as shown in Fig. 3. The apex of each boss or projection is quite narrow, and when of the rounded form shown touches the tube only tangentially and consequently with a very narrow contact therewith sufficient to hold the cone in place. They fit in the tube with just enough friction or pressure to retain the cone firmly and securely in place in any position of adjustment in the tube. There may be three or four of the bosses or projections on each cone located at intervals around its periphery, and preferably at equal or nearly equal heights. They properly may be simply round, as shown in Fig. 1, or somewhat oblong, as shown in Fig. 4, or still more elongated vertically, as shown in Fig. 5, or of any other equivalent form or arrangement. As in Figs. 1 and 4, they may be used in connection with a slightly outturned edge or rim, *b*, at the lower open end of the cone, reaching quite nearly to the interior surface of the tube, though preferably not quite filling the same, as shown in Fig. 3, except, if preferred, at two or three points, this rim also serving as a stop to strike an inner bead or projection, *c*, on the inner surface of the tube, to limit the extent to which the cone may be inserted in the tube. The cone may be adjusted in position above this lowest limit to as high a position as the bosses *a* will permit without coming out of the tube, the bosses being located as high on the cone as the necessary extent of adjustment will allow. With the elongated bosses, as shown in

Fig. 5, no rim or outward turning on the lower end of the cone is necessary for the simple purpose of holding the cone in the tube.

There are superior advantages in this kind of holding projections or stays over either of the constructions mentioned in my former Letters Patent above referred to. First. No additional parts are required in their formation, and in this respect the construction is cheaper, nor are any of the parts liable to be torn off, as is the case with either of the constructions above referred to. Second. These projections are more quickly made and applied than by either of the other ways, and in this respect the construction is also quicker and cheaper. Third. These outwardly-swaged projections, being also finely perforated, do not impede the passage of air through the cone at any point nor lessen the same.

In the claims, wherein mention is made of the combination of the outwardly-swaged portions *a* with a projecting portion in a different horizontal plane, it is intended by this language to include the two equivalent forms shown in the drawings, and referred to above—to wit, one in which a projection, *b*, as in Fig. 1, supports the cone in axial position, from which it might otherwise depart, owing to the rounded form of portions *a*, and one in which the portions *a*, as in Figs. 4 and 5, are made of sufficient length to provide steady bearing for the cone, and so support it in vertical position. In these latter cases one end of each projection may be considered the “outwardly-swaged portion” and the other end the “projecting portion in a different horizontal plane” therefrom.

I claim as my invention—

1. In a central-draft lamp-burner, and in combination with the central tube, a cone or

thimble having its sides perforated, having outwardly-swaged portions in its sides to seat against the tube, and a projecting flange or rim in a different horizontal plane from said outwardly-swaged portions, whereby said cone is adapted to seat against the sides of the tube and is maintained in upright position.

2. The combination, in a central-draft lamp, the central tube of which is provided with a bead or stop, of a removable cone or thimble having its sides perforated, and having an outwardly-turned flange or rim adapted to seat on said bead or stop.

3. The combination, in a central-draft lamp, the central tube of which is provided with a bead or stop, of a cone or thimble having its sides perforated, and having outwardly-swaged projections in said sides and an outturned flange or projection at its lower end, having seating on said bead or stop, substantially as set forth.

4. The combination, with the central tube of a central-draft lamp, of a cone or thimble formed in one piece, having an imperforate top and perforated sides having outwardly-swaged projections adapted to seat against the sides of the tube, and a projection or outturned portion at its lower end also seating against said tube, substantially as set forth.

5. A removable cone or thimble made of a single piece of metal having perforated sides, in combination with the central tube of an Argand lamp, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LEONARD HENKLE.

Witnesses:

R. F. OSGOOD,
P. A. COSTICH.