

T. HOUGHTON.

Lamp Fastener.

No. 26,767.

Patented Jan'y 10, 1860.

Fig. 1

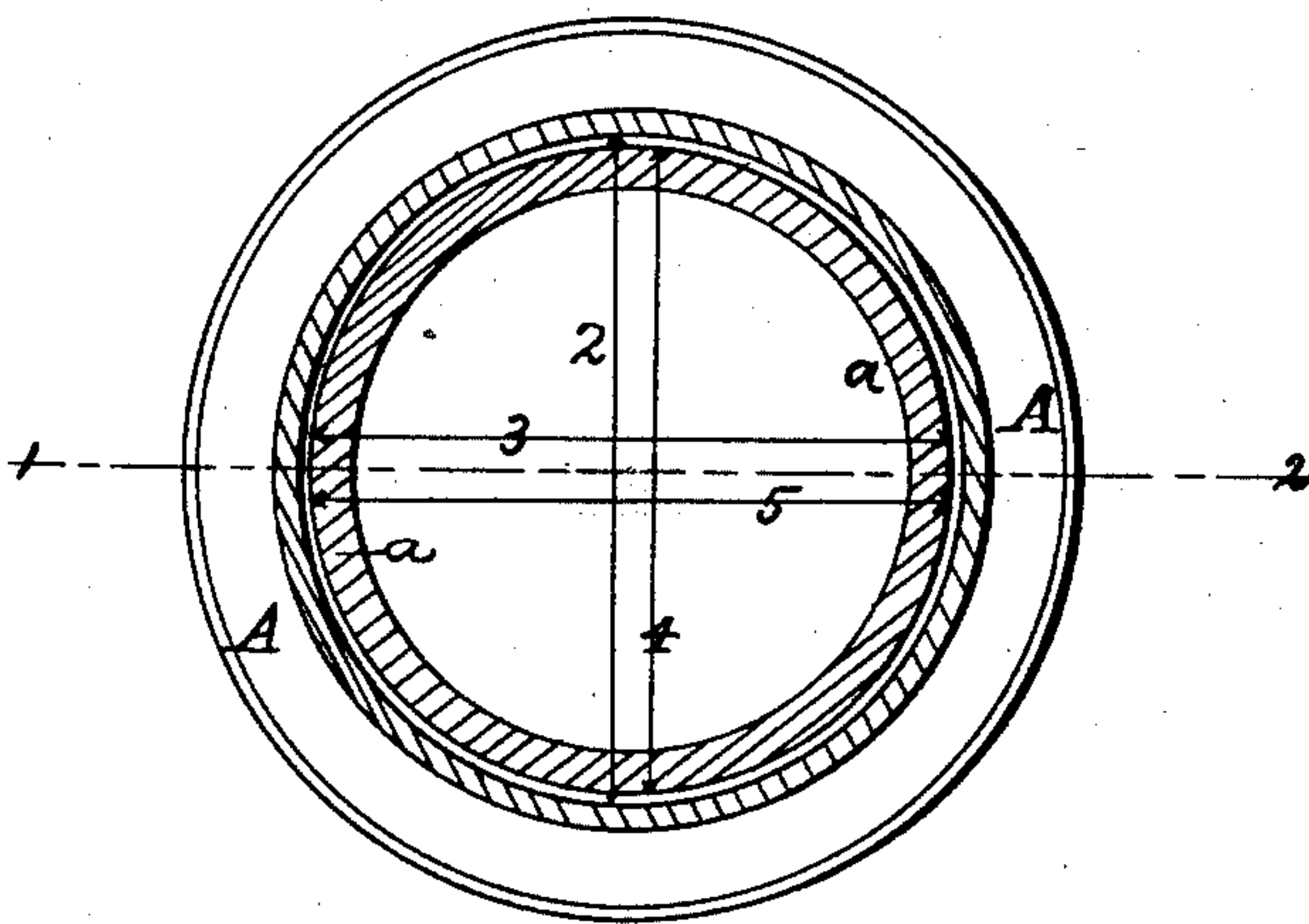


Fig. 2

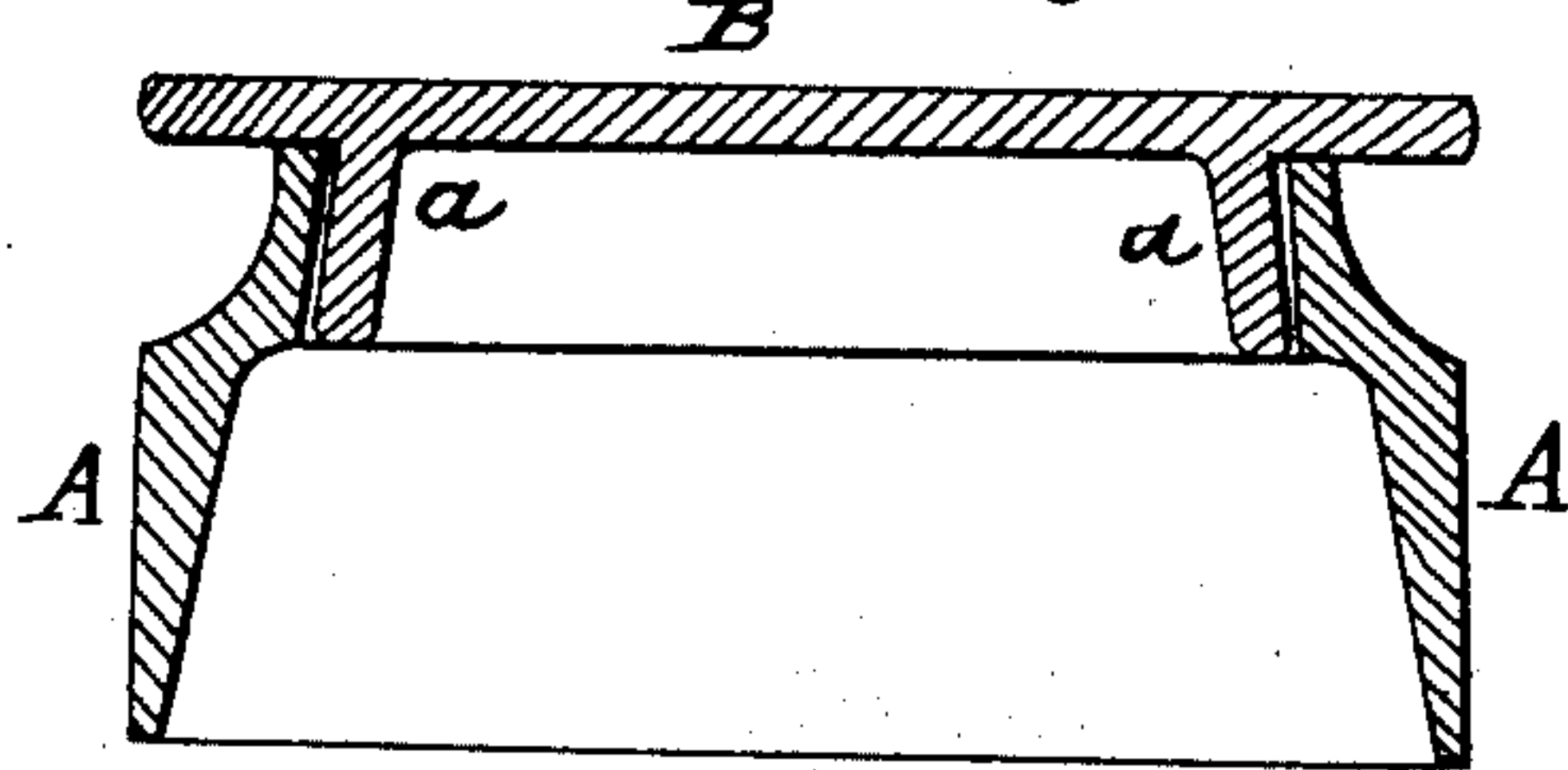
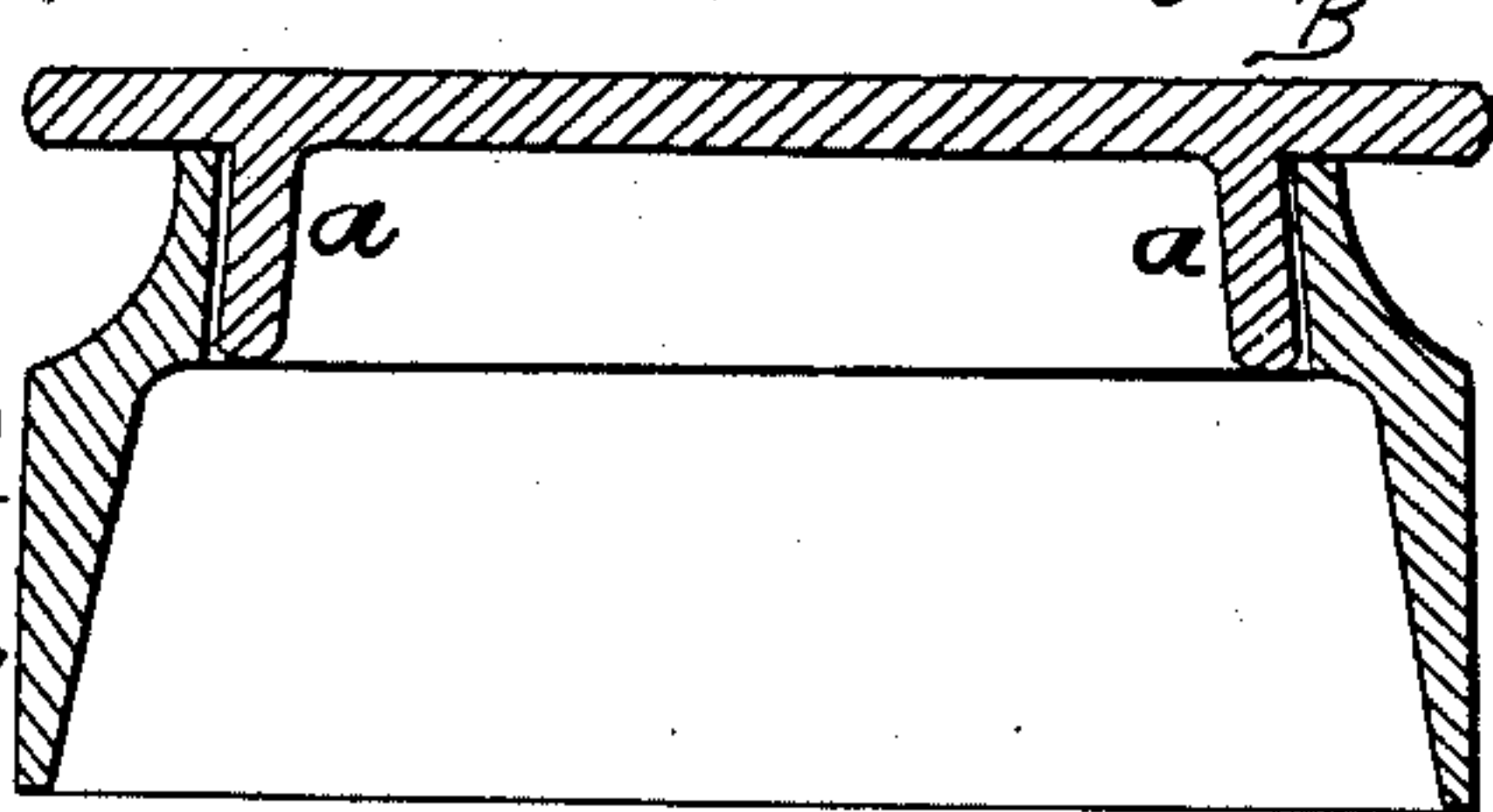


Fig. 3



WITNESSES  
Henry Brown  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

THOMAS HOUGHTON, OF PHILADELPHIA, PENNSYLVANIA.

## LAMP.

Specification of Letters Patent No. 26,767, dated January 10, 1860.

*To all whom it may concern:*

Be it known that I, THOMAS HOUGHTON, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and Improved Fastening for the Caps of Lamps and other Vessels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in forming on the under side of the cap or cover of a lamp or other vessel an oval or elliptical inclined flange or projection arranged in respect to and adapted to an oval and inclined opening in the top or ferrule of the said vessel, so that on inserting the oval projection into the oval opening and turning the cap, the latter may be securely fastened to the ferrule and brought to bear on the same with a perfectly tight joint as fully described hereafter.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawing which forms a part of this specification, Figure 1 is a sectional plan drawn to an enlarged scale of my improved fastening for the caps of lamps and other vessels and Figs. 2 and 3 are vertical sections of Fig. 1.

A represents the metal top or ferrule of a lamp or other vessel, and B the cap or cover which is shown in the drawing as having a plain surface, but which, if used for a lamp may have the usual, or any suitable wick tube and burner attached to it.

As viewed in the vertical sections, Figs. 2 and 3, the opening in the top of the funnel A, is more contracted above than below the sides being slightly inclined. Viewed as shown in the sectional plan Fig. 1, the opening is in the form of an ellipse or oval the larger diameter of which is represented by the red line 2 and the smaller diameter by the red line 3.

The cup or cover B consists of a circular metal plate milled at the edges and furnished with a flange *a* projecting downward to the same depth or thereabout as that of the opening in the ferrule A. This flange

is also in the form of an ellipse or oval the larger diameter of which is represented in Fig. 1, by the blue line 4, and the smaller diameter by the blue line 5.

As seen in the vertical sections 1 and 2, the flange *a* is inclined so as to be more contracted above than below the inclination corresponding to that of the opening, or being slightly more abrupt, as seen in Fig. 3. The oval flange *a* is of such a size and form compared with that of the oval opening in the ferrule, that when the larger and smaller diameters of the former coincide with those of the latter the flange is just contracted enough to fit into the opening of the ferrule as seen in Fig. 2. The larger diameter of the flange however, slightly exceeds the smaller diameter of the opening so that when inserted into the latter and turned around the excess in the larger diameter of the flange over the smaller diameter of the opening prevents the two from being brought to coincide with each other and causes the elongated ends of the oval flange to bear tight against the narrowest portion of the opening (see Fig. 3) and the greater the force applied to turn the cap the tighter will the latter become. It will be also evident that owing to the inclined sides of both flange and opening, the lower edge of the former will on the turning of the cap have a tendency to reach the most enlarged portion of the opening, so that the more force is applied to turn the cap the harder will the latter press on the upper edge of the ferrule and the tighter will be the joint. It will be readily seen that after the cap is inserted into the ferrule this tightening effect may be produced by turning the cap in either direction.

Although my invention is applicable to the caps of vessels generally, it is especially applicable to the fastening on of the caps of fluid lamps in preference to the usual mode of screwing them on, by which it is impossible at all times to insure a perfectly tight fit of the cap to the ferrule. In my improvement however it is impossible to turn the cap without causing it to bear accurately on the edge of the ferrule and thus a perfectly tight joint is certain.



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

The top of the ferrule A with its oval and inclined opening in combination with the  
5 oval and inclined flange or projection of the cap B, the said flange and opening being formed and adapted to each other substantially as and for the purpose herein set forth.

In testimony whereof, I have signed my name to this specification in the presence of 10 two subscribing witnesses.

THOMAS HOUGHTON.

Witnesses:

HENRY HOWSON,  
CHARLES D. FREEMAN.