

(No Model.)

T. LANGSTON.

LAMP.

No. 360,704.

Patented Apr. 5, 1887.

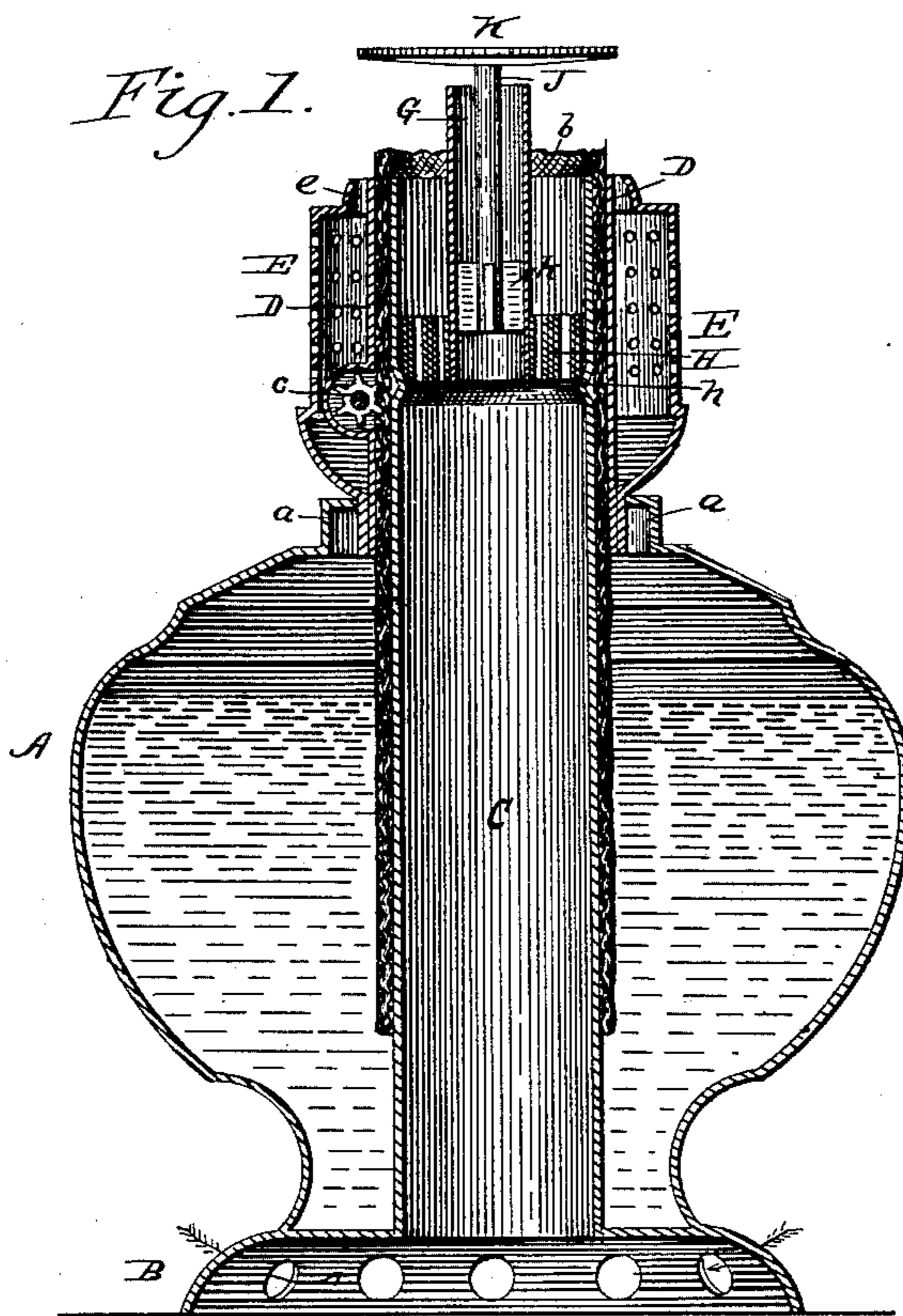
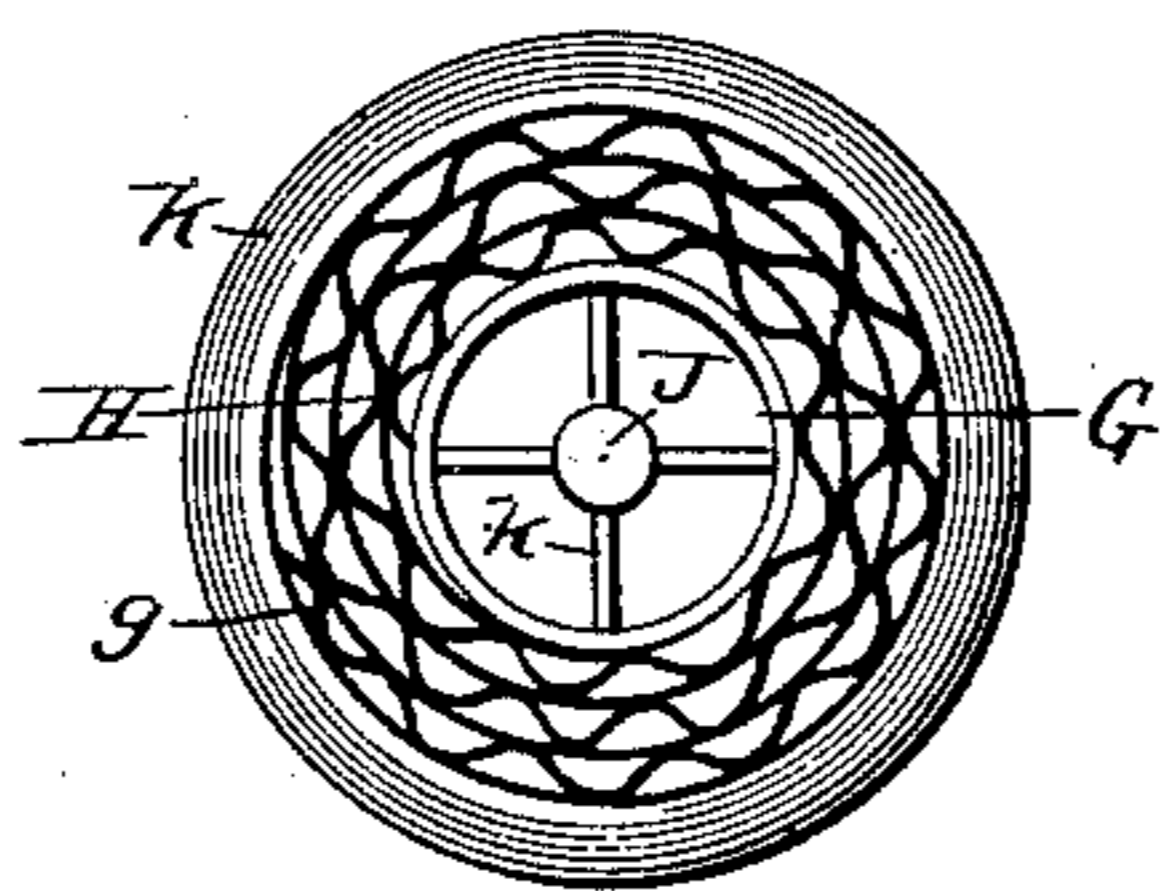


Fig. 2.



Witnesses

C. H. Davis
John S. Finch

Inventor

Thomas Langston

By *his* Attorney

C. M. Alexander

UNITED STATES PATENT OFFICE.

THOMAS LANGSTON, OF MERIDEN, CONNECTICUT.

LAMP.

SPECIFICATION forming part of Letters Patent No. 360,704, dated April 5, 1887.

Application filed November 4, 1886. Serial No. 217,951. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LANGSTON, a citizen of the United States, residing at Meriden, in the State of Connecticut, have invented certain new and useful Improvements in Lamps, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a diametrical vertical section through my improved burner applied to a lamp. Fig. 2 is a bottom view of the improved device detached from the lamp.

My invention relates to an improvement in lamps of the "Argand" kind, as will be fully understood from the following description, when taken in connection with the annexed drawings.

Referring to the annexed drawings by letters, A designates the bowl of a lamp, which is constructed with a broad perforated base, B, and a vertical central tube, C, which is freely supplied with air through the base B, as indicated by the arrows on Fig. 1. This tube C rises above the collar *a* of the bowl A, and is surrounded by a short tube, D, between which and the said tube C is received the wick *b*, adjustable up and down by means of a spur-wheel, *c*, in the usual well-known manner. Surrounding the outer tube, D, is a perforated cylindrical jacket, E, solidly united to this tube at the lower part, *d*, which snugly fits into the collar *a* of the bowl A. At the upper end of the burner proper is an annular narrow space, *e*, which supplies air, admitted through the numerous-perforated jacket E, freely to the external side of the flame. To the lamp thus described I apply my improvements.

G designates a short tube, which has applied to its lower part a corrugated or waved cylindrical portion, H, of a diameter adapted to fit snugly into the tube C, and within this portion H, I apply a corrugated coiled strip, *g*, thereby forming numerous vertical passages for the purpose of producing a great number of finely-divided ascending air-currents in the tube C, which currents are directed upward, and as they emerge from the upper end of said tube they impinge against the inner side of the flame. Here it will be observed that

I have two ascending currents of air supplying oxygen to both sides of the flame at and near the root thereof, the inner current passing through the enlarged portion H and becoming considerably heated before contact with the flame, and the outer current passing through the jacket E and also becoming more or less heated before contact with the outer side of the flame.

The position or height of the tube G and its corrugated portion H in the tube C is determined by the annular contraction *h* of this tube as indicated in Fig. 1.

Inside of the short tube G, which is considerably less in diameter than the tube C, is the stem J of a button-spreader, K, which stem is centered in tube G by radial wings *k*, fitting tightly in the latter, but allowing the button and its stem to be adjusted higher or lower, as may be required. The radial wings *k* not only center the button stem and allow the button to be adjusted vertically, but they also (more or less) divide the currents of air rising through tube G and impinging against the bottom convex side of the said button. These currents of air not only supply oxygen to the interior of the flame, but they aid in spreading the flame.

It will be observed that the corrugated head or portion H may be made of thin sheet metal—such as scrap-tin—and that the parts of which it is composed may be readily secured to the tube G by a few drops of solder.

Having described my invention, what I claim is—

The combination, with the lamp-bowl, its central tube, C, having an internal contraction, *h*, the perforated jacket E, and the tube D, of the tube G, the regulating device H, formed of strips of corrugated sheet metal and resting upon the contraction in the tube C, and the vertical adjustable stem J, and its spreader and radial wings, all substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS LANGSTON.

Witnesses:

JOHN E. ARNOLD,
JOHN F. BURKE.