

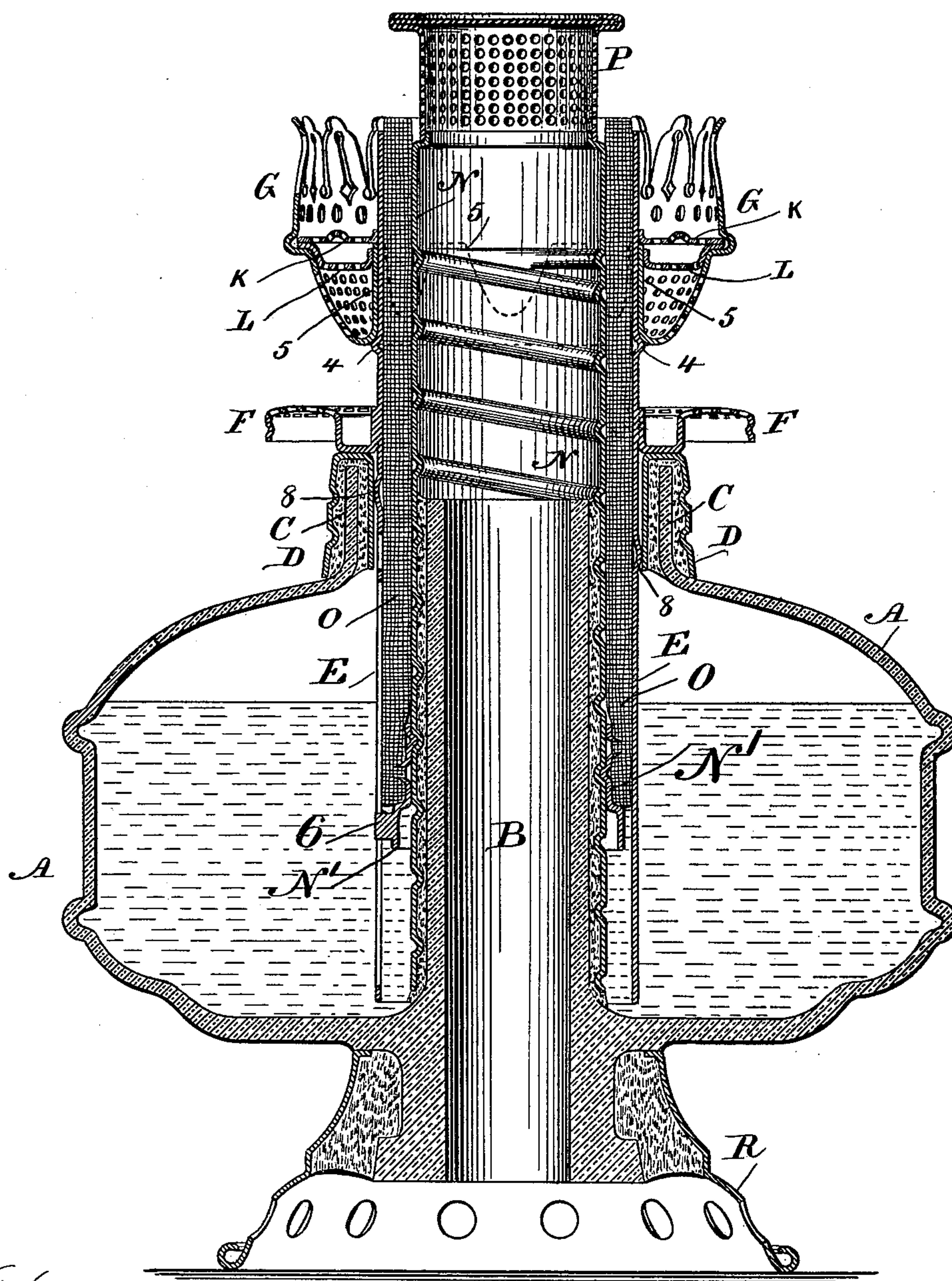
(No Model.)

L. J. ATWOOD.

ARGAND LAMP.

No. 386,953.

Patented July 31, 1888.



Witnesses,

Chas N. Smith.  
J. Stail.

*Inventor.*

Lewis J. Atwood.  
for Lemuel W. Serrell, atty



# UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE  
PLUME & ATWOOD MANUFACTURING COMPANY, OF SAME PLACE.

## ARGAND LAMP.

SPECIFICATION forming part of Letters Patent No. 386,953, dated July 31, 1888.

Application filed January 30, 1888. Serial No. 262,392. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS J. ATWOOD, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in Argand Lamps, of which the following is a specification.

Argand lamps have been constructed with a glass reservoir and with a central air-tube, also of glass and in one piece with the rest of the reservoir, and a sheet-metal air-tube has been cemented to the exterior of the glass air-tube, the wick surrounding such air-tube, so as to be raised or lowered by a suitable holder. A lamp of this character is described and claimed in my application, Serial No. 260,810, filed January 16, 1888.

My present invention is made for the purpose of simplifying the lamp and rendering the same perfectly tight, so that oil cannot pass through between the glass and the metal at the air-tube and the sheet metal cannot become loose upon the glass.

In the drawing I have represented my improvement by a vertical section.

Argand lamps have been made in which a wick has been attached to a short sleeve having a screw-section within the same, and this sleeve has been rotated around an air-tube having a screw-thread bent in the sheet metal; but this air-tube having a screw-thread has been soldered to the other metal parts of the lamps, and the same, being old, is hereby disclaimed.

In my present improvements I make use of a reservoir, A, of glass, with a central air-tube, B, also of glass, there being a rim, C, at the upper part of the reservoir, around which the sheet-metal collar D is secured by plaster. The interior of this collar D is cylindrical, and it receives within it the wick-tube E, upon which is a gallery, F, that rests upon the top of the collar D, and there is also a chimney-holder, G, that is perforated to form an air-distributor, and this chimney-holder rests upon the annular rib 4 around the wick-tube E, and there are springs 5 upon the chimney-holder, that come in contact with the exterior of the wick-tube and hold such chimney-holder in position. The perforated rings K L within the

air-distributor and chimney-holder also aid in preventing external currents of air interfering with the steadiness of the flame.

The sheet-metal air-tube N is corrugated helically to form a screw-thread, and the sleeve N' surrounds the tube N loosely, and it is indented with a screw-section to fit the corrugation in the air-tube N, so that by rotating this sleeve N' the same is raised or lowered, and to the sleeve N' the lower end of the Argand wick O is attached, and there is a projection, 6, at one side of the sleeve, passing into a vertical slot in the wick-tube E, so that by revolving the gallery F and wick-tube E the sleeve N' will be revolved and raised or lowered, and the wick thereby adjusted, and this wick-tube E passes freely within the cylindrical portion of the sheet-metal collar D, so that it may be revolved therein; but to furnish the friction necessary to prevent the wick-tube E slipping out of the collar D too easily bows or springs 8 are pressed up in the sheet metal of the wick-tube E, and these press against the interior surface of the collar D.

The sheet-metal air-tube N is of a size to pass over the outside of the glass air-tube B, and plaster-of-paris or suitable cement is introduced within the air-tube N and outside of the glass tube B, so as to unite the metal and the glass in the most firm and reliable manner, and it will be understood that the corrugations forming the screw-thread in the tube N aid in holding the tube in its position, because the plaster adheres firmly to the glass, and also to the metal, and in addition to the adhesion the ribs or corrugations in the metal form points for the plaster to adhere to, and they prevent the tube rotating upon the plaster under any circumstances. This tube N should be securely plastered to the glass tube B and be made as nearly parallel therewith and concentric thereto as possible before the collar D is put upon the glass rim C, and around the tube N, between such tube N and this collar D, a guide-cylinder should be inserted, so that the said collar D, when placed outside said guide-cylinder, may be plastered to the rim C perfectly parallel to and concentric with the wick-tube N both annularly and vertically, so



that said collar D will support the gallery F and wick-tube E in their proper relation to the tube N.

I have represented a foraminous deflector, 5 P, as resting upon the shoulder at the top of the air-tube N. This, however, does not form any necessary part of the present invention, as it is set forth in my aforesaid application.

The base R is preferably of metal, and it may 10 be of any desired size or shape. Openings, however, must be through or beneath the same for air to pass into the glass air-tube B.

I claim as my invention—

1. The combination, with the glass reservoir 15 A and central glass air-tube, B, in one piece, of the sheet-metal tube N, surrounding the glass tube B and parallel to and concentric therewith, and having a helical rib or corrugation, the said tube N being permanently attached to 20 the glass tube B and forming an extension to the same, and the sleeve or nut N' around the said ribbed or corrugated tube N, and having

a like rib or corrugation, and the wick-tube E, for operating the sleeve or nut N', substantially as set forth. 25

2. The glass reservoir and glass air-tube B in one piece, in combination with the collar D, having a cylindrical interior portion and secured to the exterior flange of the reservoir, the wick-tube E within the cylindrical portion 30 of the collar D, the gallery F, attached to the wick-tube E, and the sheet-metal air-tube N, having a helical rib bent therein and forming the wick-raiser, and surrounding the glass air-tube B, and plaster or other cement between the sheet-metal cylinder N and glass 35 air-tube B, for permanently securing the former to the latter, substantially as set forth.

Signed by me this 24th day of January, 1888.

L. J. ATWOOD.

Witnesses:

R. T. LATTIN,  
B. B. BRISTOL.