No. 808,930. PATENTED JAN. 2, 1906.

D. C. KLINE.

# BURNER DEVICE FOR TUBULAR LANTERNS.

APPLICATION FILED JULY 21, 1905.

FIG. 1.

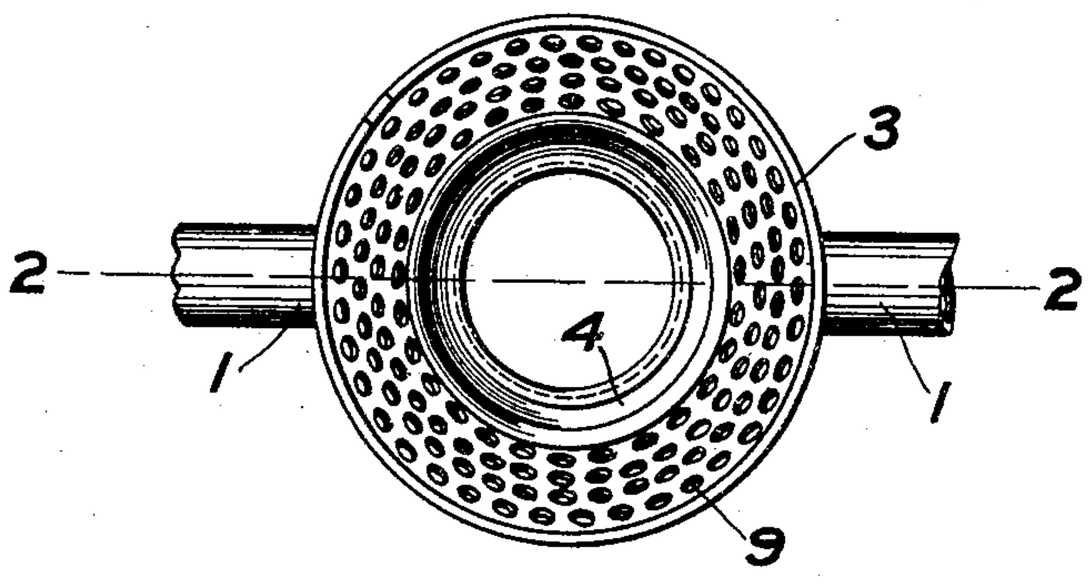



FIG. 2.

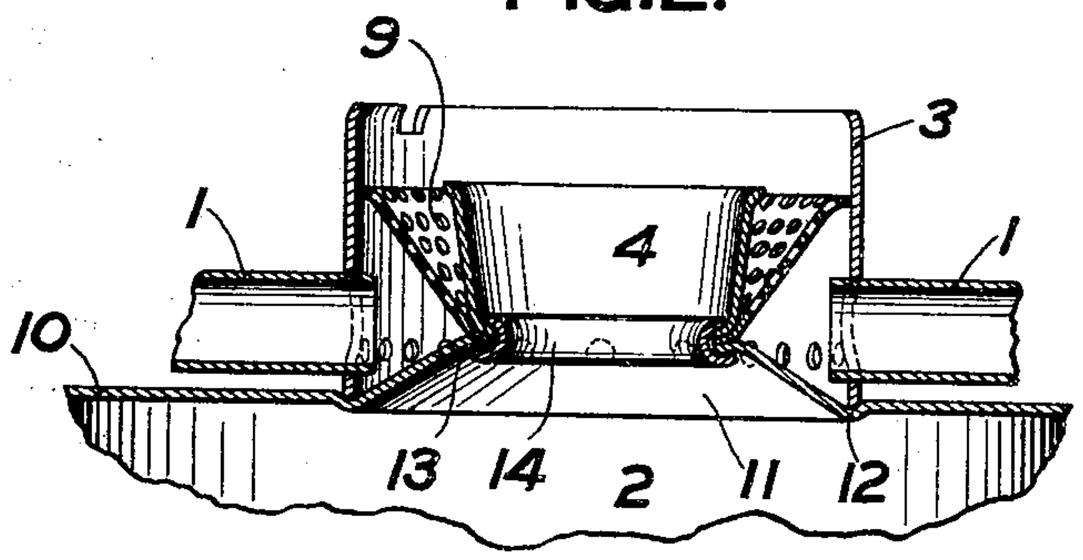
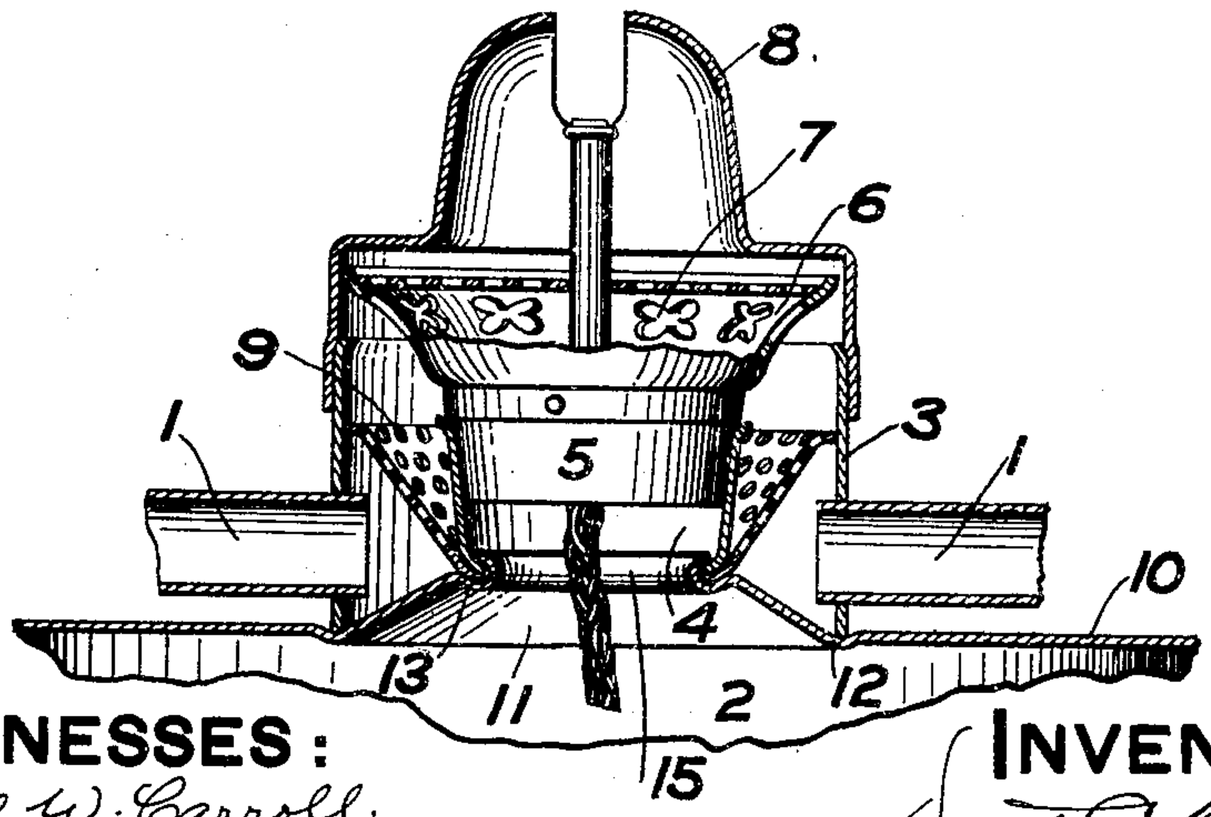



FIG. 3.




WITNESSES:

Clarence W. Carroll.

H. Gurnee.

INVENTOR:

David C. Kline

by Osborn & Davis

his Attys

# UNITED STATES PATENT OFFICE.

DAVID C. KLINE, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE PRITCHARD-STRONG COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

## BURNER DEVICE FOR TUBULAR LANTERNS.

No. 808,930. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed July 21, 1905. Serial No. 270,638.

*To all whom it may concern:*

Be it known that I, DAVID C. KLINE, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Burner Devices for Tubular Lanterns, of which the following is a specification.

This invention relates to burner devices for tubular lanterns.

In the drawings, Figure 1 is a top plan view of a device embodying this invention, omitting the burner and burner-cone therefrom. Fig. 2 is a vertical section on the line 2 2 of Fig. 1; and Fig. 3 is a vertical section on the same line 2 2 of Fig. 1 through a lantern of a modified construction, showing a burner and burner-cone in position therein.

In the drawings, 1 1 are the lower ends of the usual air-tubes of a tubular lantern.

2 is the oil-font.

3 is the gallery-tube, to which the ends of the air-tubes are connected.

4 is the support or socket for the burner.

5 is the burner itself, adapted to fit in said socket, the socket and the burner being preferably conical to fit one within the other.

6 is the burner-cone, adapted to fit upon the gallery-tube 3, which is outside the rim of the flared portion 6 of the burner-cone.

Within the gallery-tube 3 is the annular foraminous deflecting and current-checking diaphragm, 9 separating the lower portion of the gallery with which the air-tubes 1 connect from the upper portion of the gallery constituting a chamber with the burner-cone around the burner. In the present form of device the air comes in through the side tubes, is distributed and checked by the diaphragm 9, passes upward through the flared portion 6 of the burner into the burner-cone, and by the usual slot in the burner-cone is directed against the sides and ends of the flame.

In order to produce a satisfactory and cheap device of this construction, the top 10 of the font is pressed up into a projection 11, perforated at the center to form an orifice and having around it a bead or groove 12 in the top of the font. In this bead or groove 12 rests the lower edge of the gallery-tube 3. The lower edge of the burner-socket 4 is turned inwardly to register with the inner edges of the font-orifice and of the annular diaphragm 9. A sheet-metal annulus 14 is bent over and compressed upon the inner edges of the burner-socket, the font-orifice, and the diaphragm, whereby these three parts are fastened rigidly together, as shown in Fig. 2, without requiring the use of solder. In Fig. 3 the same device is employed for holding the parts together; but the annulus is formed integral with one of the three parts. In this form of device the annulus 15 is on the metallic inner edge of the font-orifice in the projection 13 and fastens the registering inner edges of the diaphragm and of the burner-socket to the font.

This construction is cheap, is capable of manufacture by dies with a minimum amount of handwork, and is capable of manufacture and assembling by unskilled labor.

What I claim is—

1. In a burner device for tubular lanterns, a gallery-tube, an oil-pot having a central orifice within said gallery-tube, a burner-support having an orifice corresponding to said central orifice, a perforated diaphragm-plate having its outer edge fitting the gallery-tube and its inner edge registering with the oil-pot orifice, and means for holding said parts together.

2. In a burner device for tubular lanterns, a gallery-tube, an oil-pot having a central orifice within said gallery-tube, a burner-support having an orifice corresponding to said central orifice, a perforated diaphragm-plate having its outer edge fitting the gallery-tube and its inner edge registering with the oil-pot orifice, and a metal annulus in said orifices and compressed upon the adjacent edges of the oil-pot and of the burner-support.

DAVID C. KLINE.

Witnesses:
D. GURNEE,
L. THON.