

(No Model.)

F. DIETZ.
TUBULAR LANTERN.

No. 453,760.

Patented June 9, 1891.

Fig. 1.

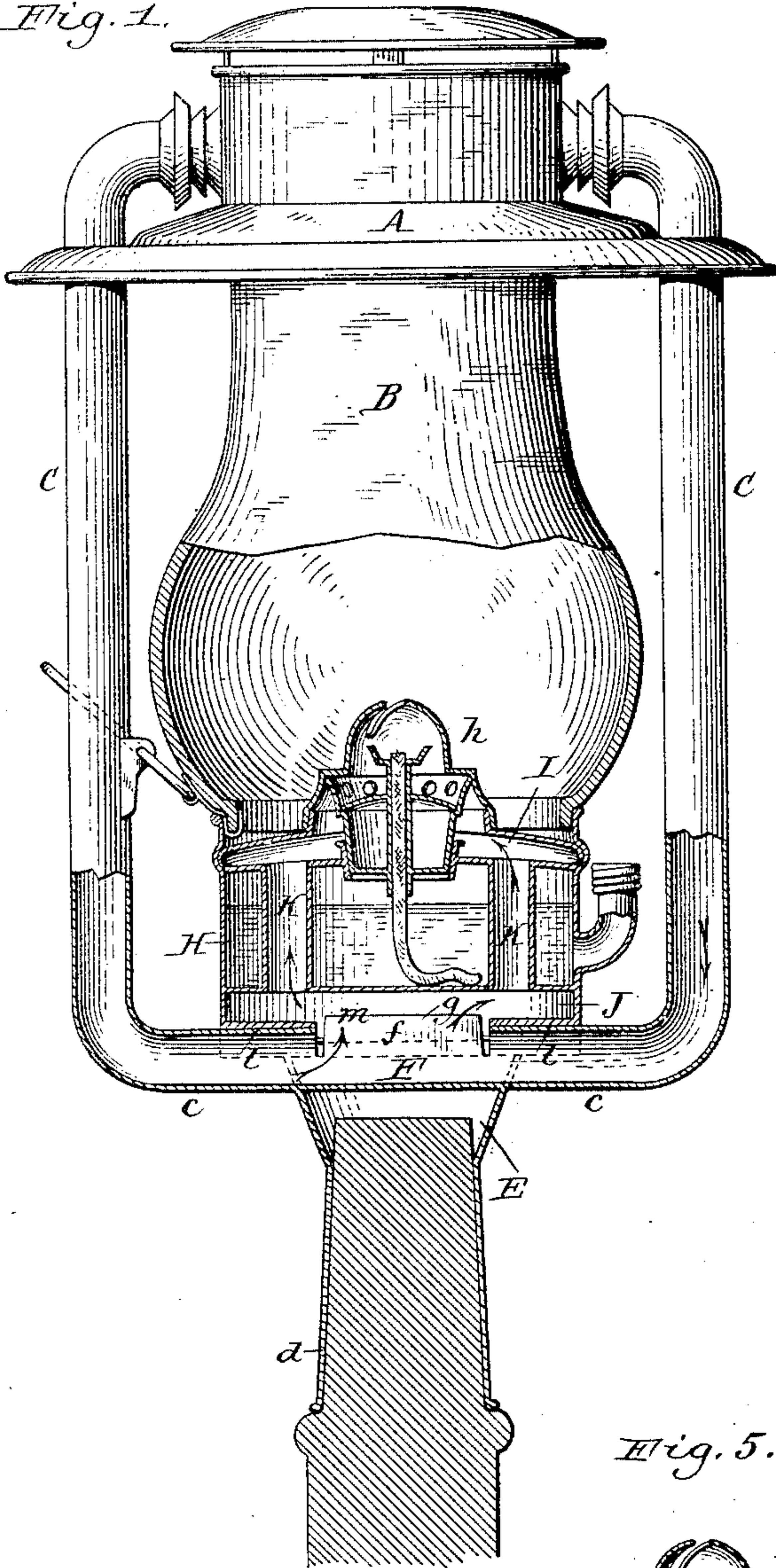


Fig. 2.

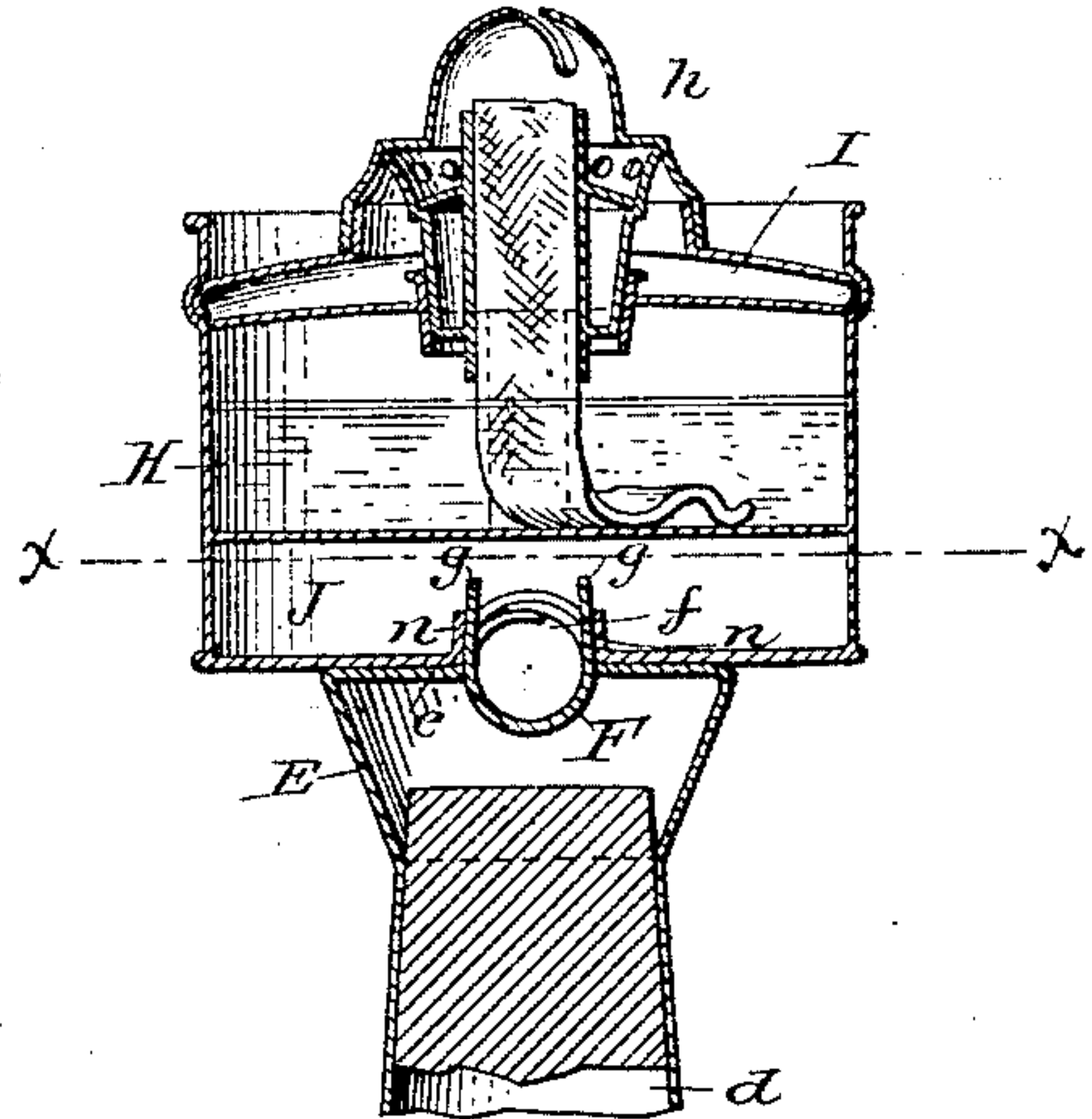


Fig. 3.

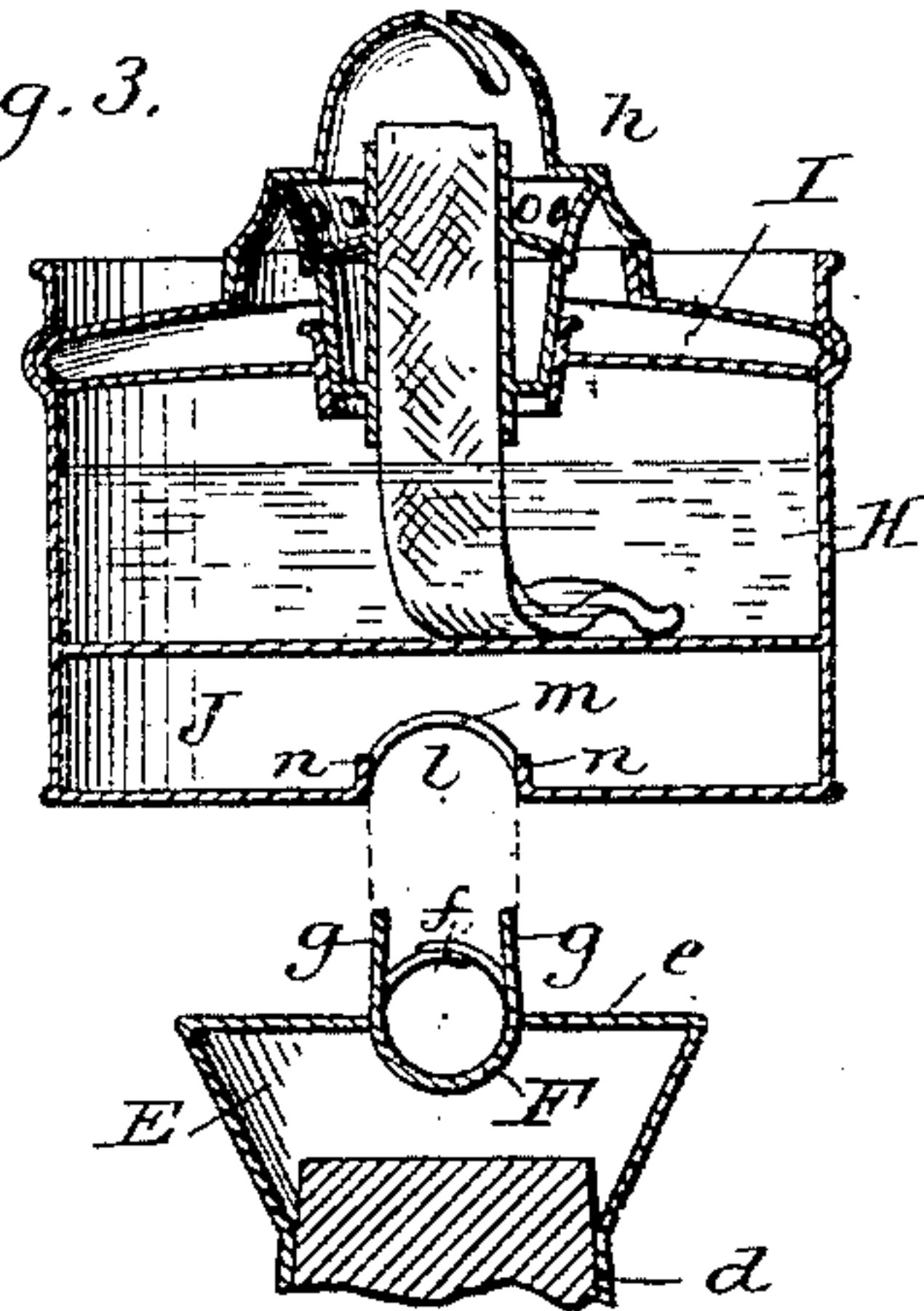


Fig. 4.

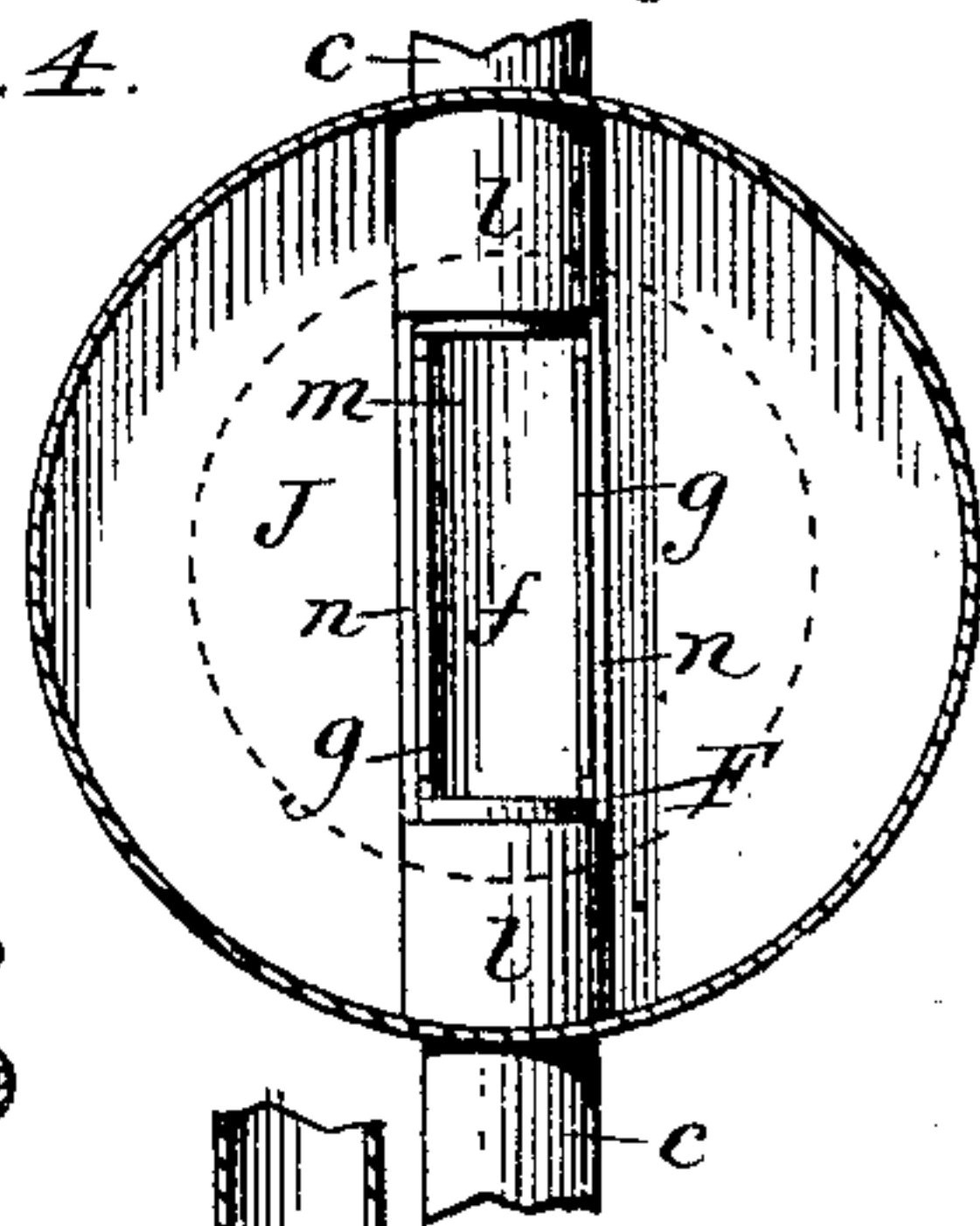
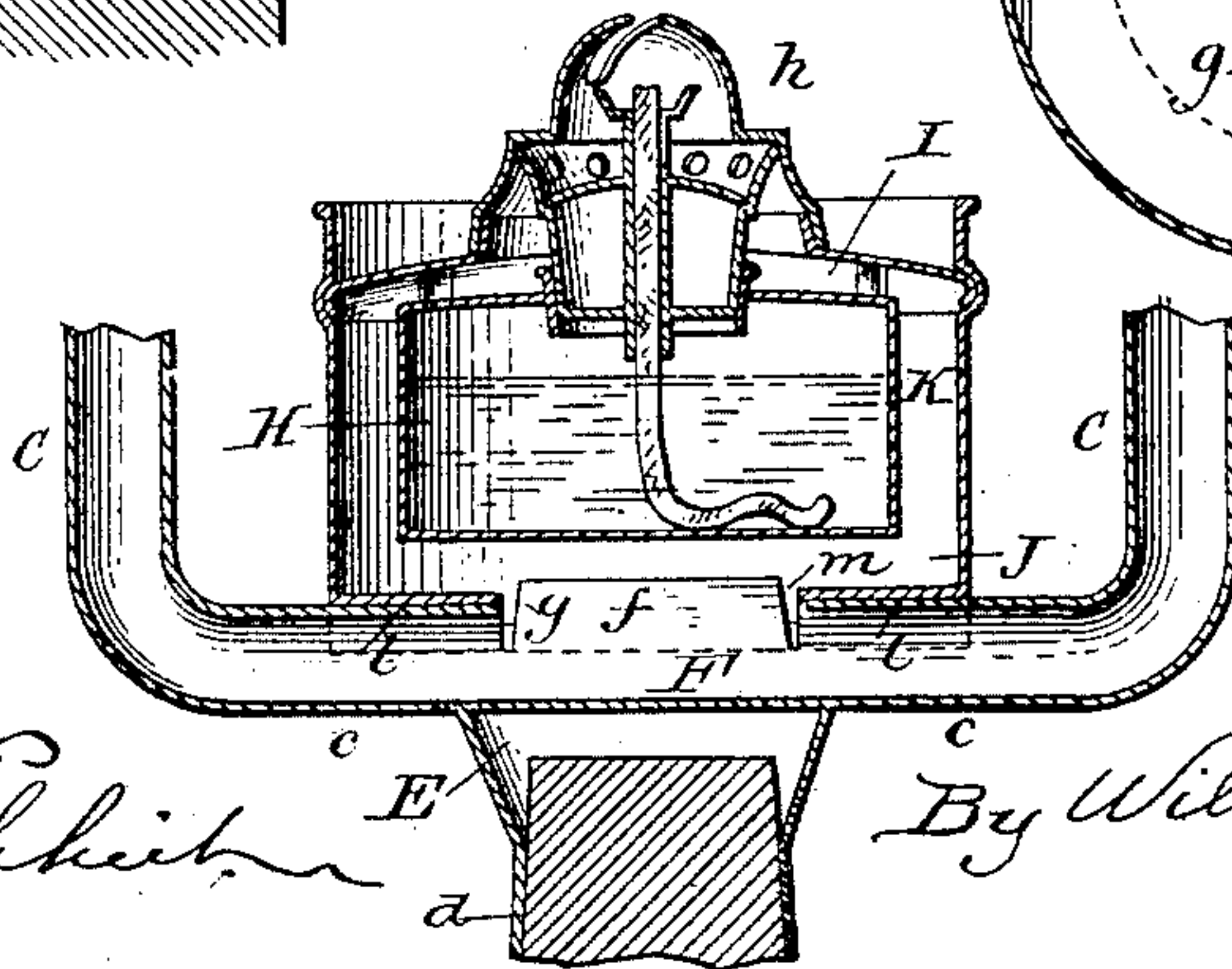


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

FREDERICK DIETZ, OF NEW YORK, N. Y., ASSIGNOR TO THE R. E. DIETZ COMPANY, OF SAME PLACE, AND THE STEAM GAUGE AND LANTERN COMPANY, OF ROCHESTER, NEW YORK.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 453,760, dated June 9, 1891.

Application filed April 11, 1889. Serial No. 306,799. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK DIETZ, a citizen of the United States, residing at New York, in the county and State of New York, have
5 invented new and useful Improvements in Tubular Lanterns, of which the following is a specification.

This invention relates to that class of large tubular lanterns or lamps which are designed
10 for use where a powerful illumination is desired—for instance, for the illumination of streets and public places and in packing-houses, mills, &c.

The object of this invention is to connect
15 the air-tubes to the base of the lamp or lantern in a simple and secure manner; and my invention consists to that end of the improvements which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation, partly in section, of a globe street-lamp provided with my improvements. Fig. 2 is a fragmentary vertical section of the lower portion of the lamp at right angles to
25 Fig. 1. Fig. 3 is a similar view showing the oil-pot raised from its support. Fig. 4 is a cross-section in line *x x*, Fig. 2. Fig. 5 is a fragmentary vertical section of the lower portion of the lamp, showing a slightly-modified
30 construction of the oil-pot and its air-passages.

Like letters of reference refer to like parts in the several figures.

A represents the top of the lamp-frame; B, the globe, and C C the side tubes, having at their lower ends inwardly-extending
35 branches *c c*.

d represents the post-socket, arranged below the lower branches *cc* of the air-tubes and provided at its upper end with a continuation
40 or enlargement E, which extends above the socket proper and which is preferably made upwardly flaring. The branches *c c* of the air-tubes penetrate the walls of the enlargement E, and are connected within said enlargement by a horizontal tubular piece F, which
45 is preferably formed in one piece with the branches *c c*. This tubular connection is provided at its top with an opening *f*, through which the air issues upwardly. This opening
50 is formed by slitting the top of the tubu-

lar connection lengthwise in the center and transversely at both ends of the longitudinal slit down to the top of the enlargement E. The latter is constructed with a closed top *e*, which covers the entire upper end of the enlargement, except where the tube branches *c*
55 and connection F extend across the top. The two flaps or flanges *g g* of the enlargement E, which are formed by the longitudinal and transverse slits, are bent upwardly, so as to project vertically above the top of the enlargement E on both sides of the opening *f*, as
60 clearly shown in Fig. 3.

H represents the oil-pot; *h*, the burner; I, the air-chamber above the oil-pot communicating with the burner, and J the air-chamber below the oil-pot, which receives the air from the tubes. Communication is established between the lower air-chamber J and the upper air-chamber I by upright tubes K, extending through the oil-pot, as represented in Fig.
65 1, or by an annular air-passage K', surrounding the oil-pot, as represented in Fig. 5. The bottom of the lower air-chamber J is provided with two semi-cylindrical grooves or depressions *ll*, which fit over the inner portions of the tube branches *c c*, which are raised above the top *e* of the enlargement E. An opening *m*
75 is formed in the bottom of the lower air-chamber J between the depressions *ll*, which opening registers with the opening *f* in the connection F. The sides of the opening *m* are protected by upright flanges *n n*. The upright flanges *g g* project into the opening *m*,
80 as represented in Fig. 2, whereby the oil-pot is held against displacement on the top of the enlargement E, while it can be readily lifted off and removed, laterally from the lamp for trimming, &c., when the globe has been raised.
90 The air which passes downwardly through the side tubes issues upwardly through the opening *f* in the tubular connection F, enters the lower air-chamber J through the opening *m* thereof, and passes thence upwardly to the burner. The lower branches of the air-tubes
95 penetrate the walls of the enlargement E and are firmly secured within the same, thus establishing a secure and durable connection between the post-socket and the tubular lamp-frame. The removable oil-pot with its air- 100

chambers finds a large and reliable support upon the top of the enlargement and is securely held on the same against lateral displacement by the projecting portions of the air-tubes, which enter the opening in the bottom of the lower air-chamber.

I claim as my invention—

1. The combination, with the post-socket having at its upper end an enlargement provided with a closed top, of air-tubes having their lower portions penetrating the side wall of said enlargement and connected by a horizontal tube, which is provided with an opening above the top of said enlargement, and a laterally-removable oil-pot having an air chamber or passage which receives the air from said opening, substantially as set forth.

2. The combination, with the post-socket

having at its upper end an enlargement provided with a closed top, of air-tubes having their lower portions penetrating the side wall of said enlargement and connected by a horizontal tube, which is provided with an opening above the top of said enlargement, flanges projecting upwardly from said top on both sides of said opening, and a laterally-removable oil-pot having an air-chamber provided with an inlet-opening, into which said flanges enter, substantially as set forth.

Witness my hand this 1st day of April, 1889.

FREDERICK DIETZ. [L. S.]

Witnesses:

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