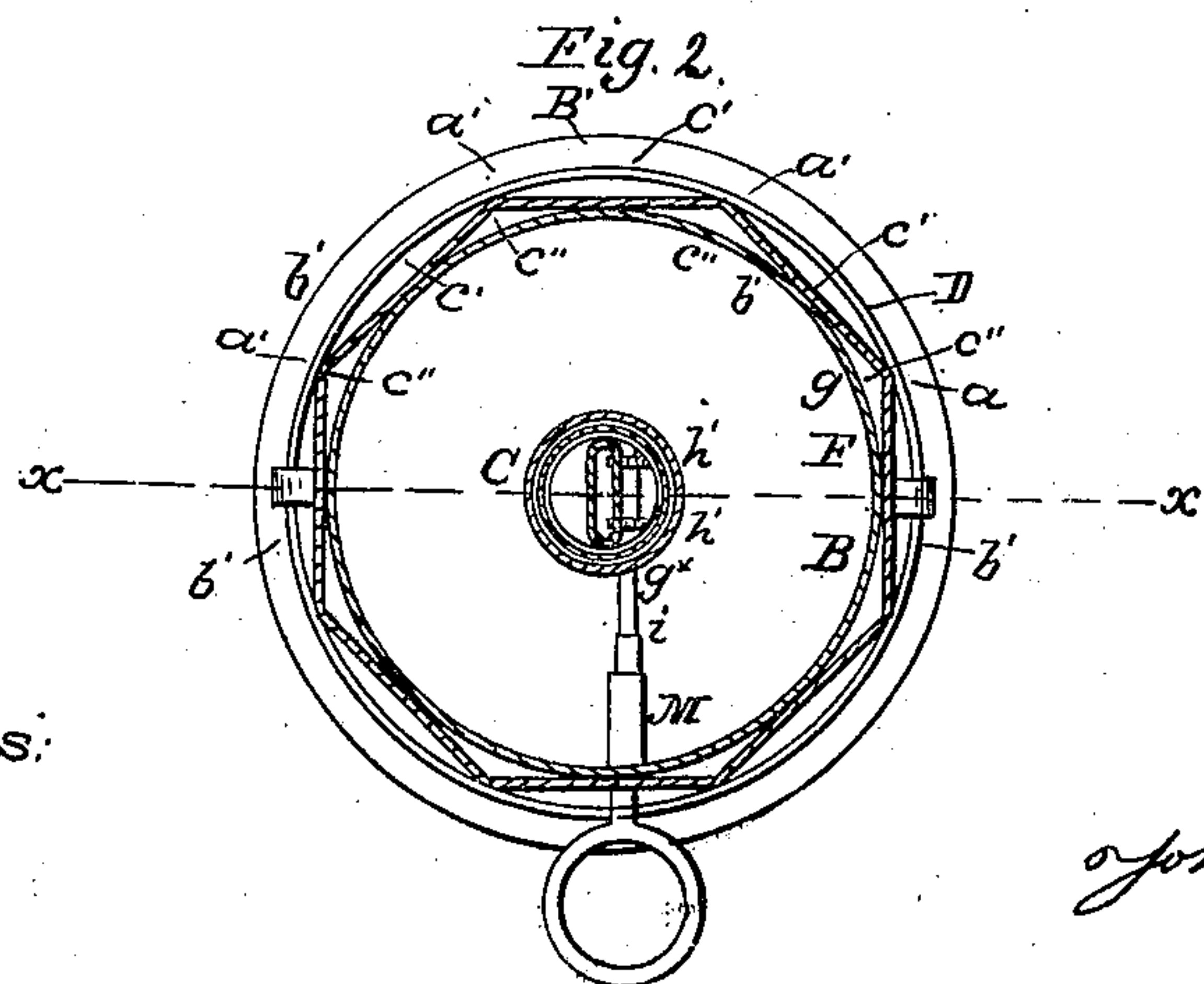
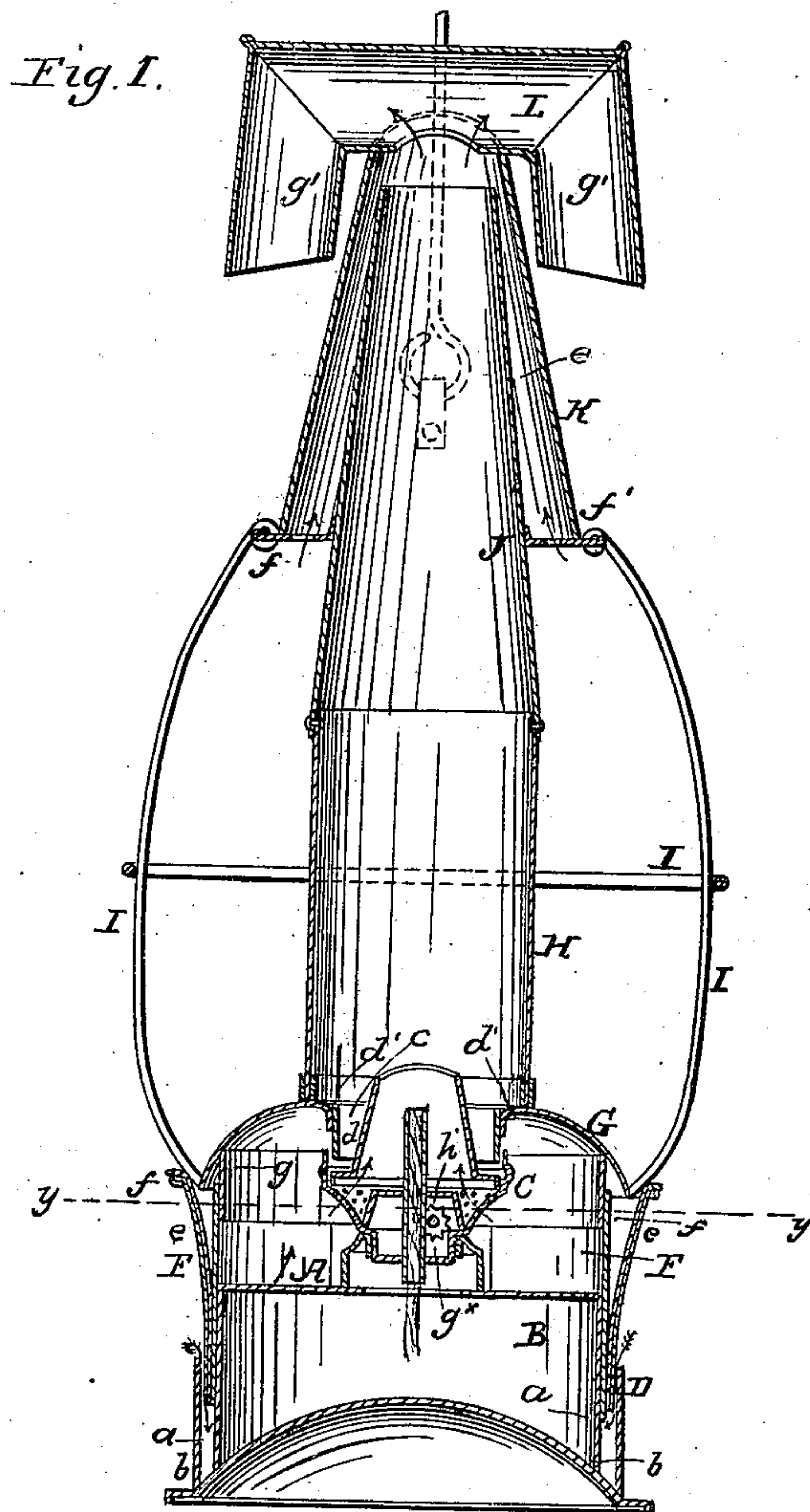


J. W. SCHREIBER.

Lantern.

No. 36,371.

Patented Sept. 2, 1862.



Witnesses:  
James David  
R. G. Wheeler.

Inventor:  
John W. Chamber



# UNITED STATES PATENT OFFICE.

JOHN W. SCHREIBER, OF NEW YORK, N. Y.

## IMPROVEMENT IN COAL-OIL LANTERNS.

Specification forming part of Letters Patent No. 36,371, dated September 2, 1862.

*To all whom it may concern:*

Be it known that I, JOHN W. SCHREIBER, of the city, county, and State of New York, have invented a new and useful Improvement in Lanterns for Burning Coal-Oil; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a sectional elevation of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in constructing the body or fountain of the lamp with an external rim or case of cylindrical form and also with a polygonal or corrugated flange of such diameter that it may fit within the external rim or case of the lamp between it and the body or fountain and form circuitous air-induction passages, through which the flame is supplied with air, these parts being used in connection with a draft-chimney provided at its upper part with a jacket or skirt, all arranged in such a manner as to form a convenient and economical lantern for burning coal-oil with a brilliant flame.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the lamp of the lantern, the body or fountain B being of cylindrical form and provided with a burner, C, of ordinary construction, as shown in Fig. 1. The body or fountain B of the lamp is encompassed at its lower part by a cylindrical rim or case, D, which is concentric with the body or fountain B of the lamp and somewhat larger in diameter to admit of a space, *a*, between them in which a polygonal or corrugated flange, F, is fitted and permanently secured. The flange F does not extend down to the bottom of the lamp, a considerable space being allowed beneath it, as shown at *b* in Fig. 1.

The base G of the lantern is formed of an arched or dome-shaped metal plate having an annular opening, *c*, at its center to admit of the cone of the burner passing through it, said opening *c* being provided with an annular pendent rim, *d*, the lower edge of which fits into the top of the burner, as shown in Fig. 1.

The lamp A is attached to the base G by means of spring catches *e*, which pass through perforations *f* near the outer edge of the base. The base G is provided with an annular pendent flange, *g*, which, when the lamp is attached to the lantern, fits within the upper part of the polygonal or corrugated flange F.

H is the chimney of the lamp, the lower end of which is attached to the upper surface of the base G concentrically with the opening *c* therein, the base being perforated, as shown at *d'*, all around the opening *c* and within the chimney H. (See Fig. 1.)

The chimney H is surrounded by wire-guards I, which may be arranged in the usual way, the upper ends of the upright guards being attached to an annular plate, J, which is fitted on the upper part of the chimney and permanently attached to it, the upper part of the chimney being of metal and the lower part of mica or glass. The upper part of the chimney is encompassed by a skirt or jacket, K, the lower end of which is attached to the plate J. This skirt or jacket is larger in diameter than the upper part of the chimney H, so as to admit of a space, *e*, between them which communicates with the external air by means of perforations *f'* in the plate J. The upper end of the skirt or jacket K has a horizontal tube, L, attached, the ends of which communicate with short pendent tubes *g' g'*, as shown in Fig. 1. The shaft *g<sup>x</sup>*, which is provided with the wheels *h'* for raising and lowering the wick, has a space, *i*, made on one end of it to receive a key, M, which is inserted through an opening in the flange F to admit of the adjustment of the wick without detaching the lamp from the lantern.

The flame of the lamp is supplied with air through the spaces formed by the polygonal or corrugated flange F in the space *a* between the rim or case D and the body or fountain of the lamp, as indicated by the arrows in Fig. 1. This circuitous route of the air insures a uniform draft within the lantern, so that the flame will be supplied evenly with air and a flickering or inconstant flame avoided. The skirt or jacket K forms a draft-passage around the upper part of the chimney and greatly increases the draft through the chimney H, as there is a rapid current through the space *e*, caused by the rarefaction of the air therein by the heat of the chimney, and this strong cur-



rent through *e* induces a draft in the chimney H. The horizontal and pendent tubes L *g' g'* protect the flame from downward or back drafts, which would be frequently caused by sudden gusts of wind. The polygonal flange F, it will be seen, is a very simple and efficient way for obtaining circuitous draft-passages, as the angles *a'*, formed by the junction of the several sides, *b'*, and the contact of the central parts of the latter with the body B of the lamp, serve as partitions in the space *a* and divide said space into a series of compartments, *c' c''*, the air passing down the former and upward through the latter into the lantern. (See Fig. 2.) This advantage, however, is not confined strictly to a polygonal flange. A crimped or corrugated one would

answer the same purpose if the angles are allowed to come in close contact with the sides of the space *a*.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The lamp A, provided with a cylindrical rim or case, D, and a polygonal or corrugated flange, F, in combination with the chimney H, and the skirt or jacket K on or around the upper part of the latter, all arranged as and for the purpose herein set forth.

JOHN W. SCHREIBER.

Witnesses:

RICHARDSON GAWLEY,  
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