

T. H. WHITE & E. KNIGHT.
Lamps.

No. 136,573.

Patented March 4, 1873.

Fig. 1.

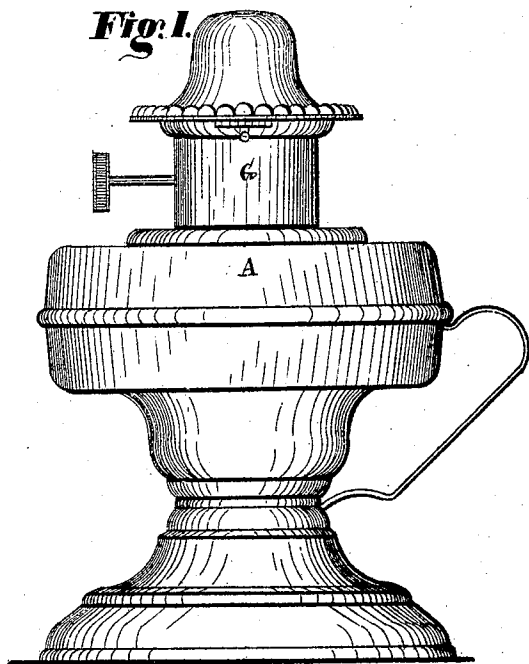


Fig. 2.

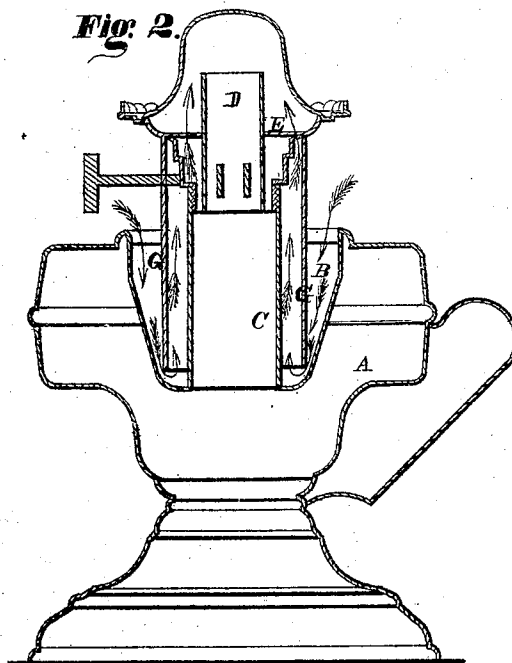


Fig. 3.

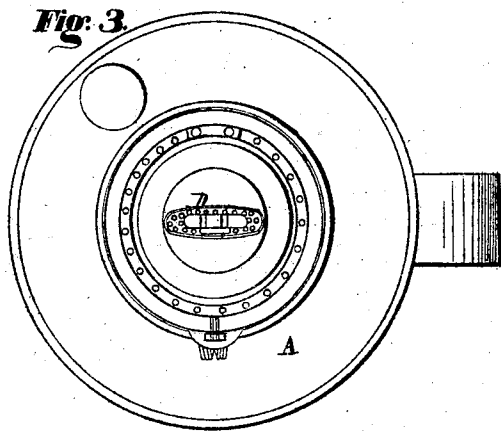
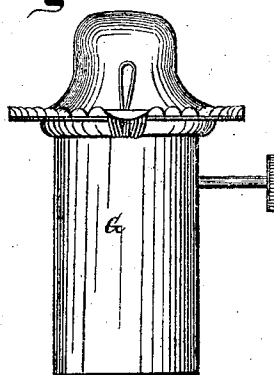


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS H. WHITE AND EDGAR KNIGHT, OF CLEVELAND, OHIO.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 136,573, dated March 4, 1873.

To all whom it may concern:

Be it known that we, THOS. H. WHITE and EDGAR KNIGHT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lamps, of which the following is a full and complete description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side view of the lamp. Fig. 2 is a transverse vertical section. Fig. 3 is a top view. Fig. 4 is a detached section.

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

The object sought for in this invention is the production of a non-explosive lamp for burning the ordinary carbon oils.

The construction and operation of said lamp are as follows:

In the drawing, A represents the fount of the lamp, which may be of the shape shown, or of any other desirable form. B is a chamber, provided with a broad open mouth, but closed at the bottom. From said bottom, and extending up through said chamber, is an oil-tube, C, the lower end of which opens into the fount, whereas the upper end is raised a little above it. In the upper end of said tube is cut a screw, into which is screwed the lower end of the wick-tube D of the burner, and which is also the base thereof. Immediately above the base is a perforated diaphragm, E, from the periphery of which depends a plain skirt, G, which, when the wick-tube is screwed into the oil-tube C, surrounds said tube, as shown in Fig. 2. The skirt descends nearly to the bottom of the chamber, but does not touch it, there being a space between the bottom and the end of the skirt for the admission of air to the inside thereof, thence upward to the burner.

It will be observed that the burner is supported in a central relation to the body of the lamp by the base of the wick-tube or burner being screwed into the oil-tube, as above described. The external air which feeds the flame is admitted thereto from the chamber, which, as above-said, has a wide open top. The air passes down through the chamber, thence under the lower end of the skirt, up around the oil-tube, to the burner, as indicated by the arrows. By this means a current of cool air is caused to flow around the entire length of the oil-tube, thereby keeping it at a low degree of temperature, and thus prevent gas from being generated, thereby avoiding explosion, at the same time causing a steady and uniform influx of air to the flame, preventing by this means any sudden flashing and flickering of the light.

The construction of the lamp is such that there is no direct communication of the flame with the bulk of the oil. The heat is thus effectually cut off therefrom; hence there is complete safety in using the lamp.

Claim.

What we claim as our invention, and desire to secure by Letters Patent, is—

The skirt G, made of one entire piece of imperforated metal, chamber B, oil-tube C, provided with a screw-thread to support and hold the burner and skirt in place, in combination with the wick-tube D and fount A, constructed and arranged substantially as and for the purpose set forth.

THOMAS H. WHITE.
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Witnesses:

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