

PATENTED

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Hiram W. Hayden

Improvement in Lamps.

Fig. 2.

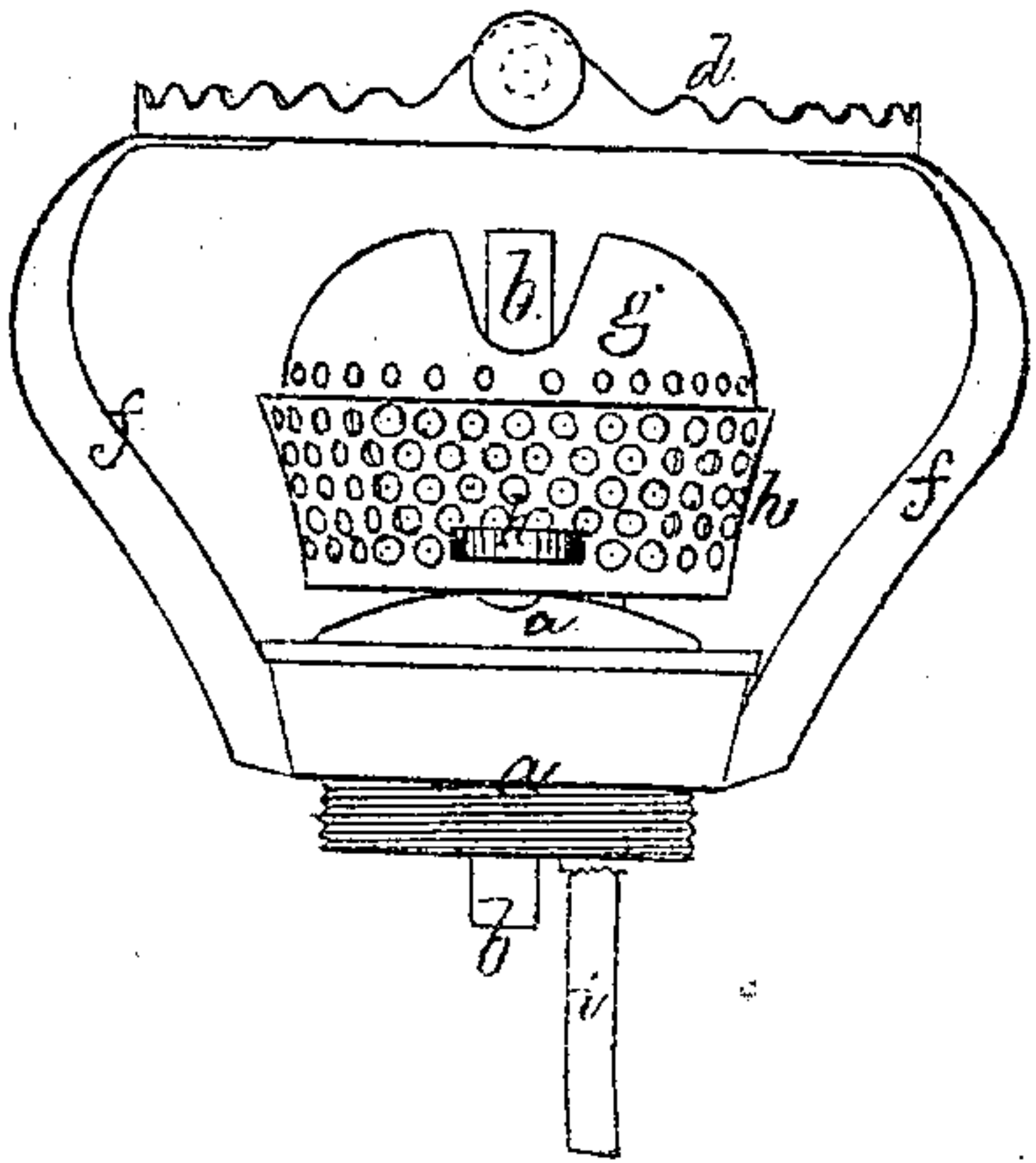


Fig. 1.

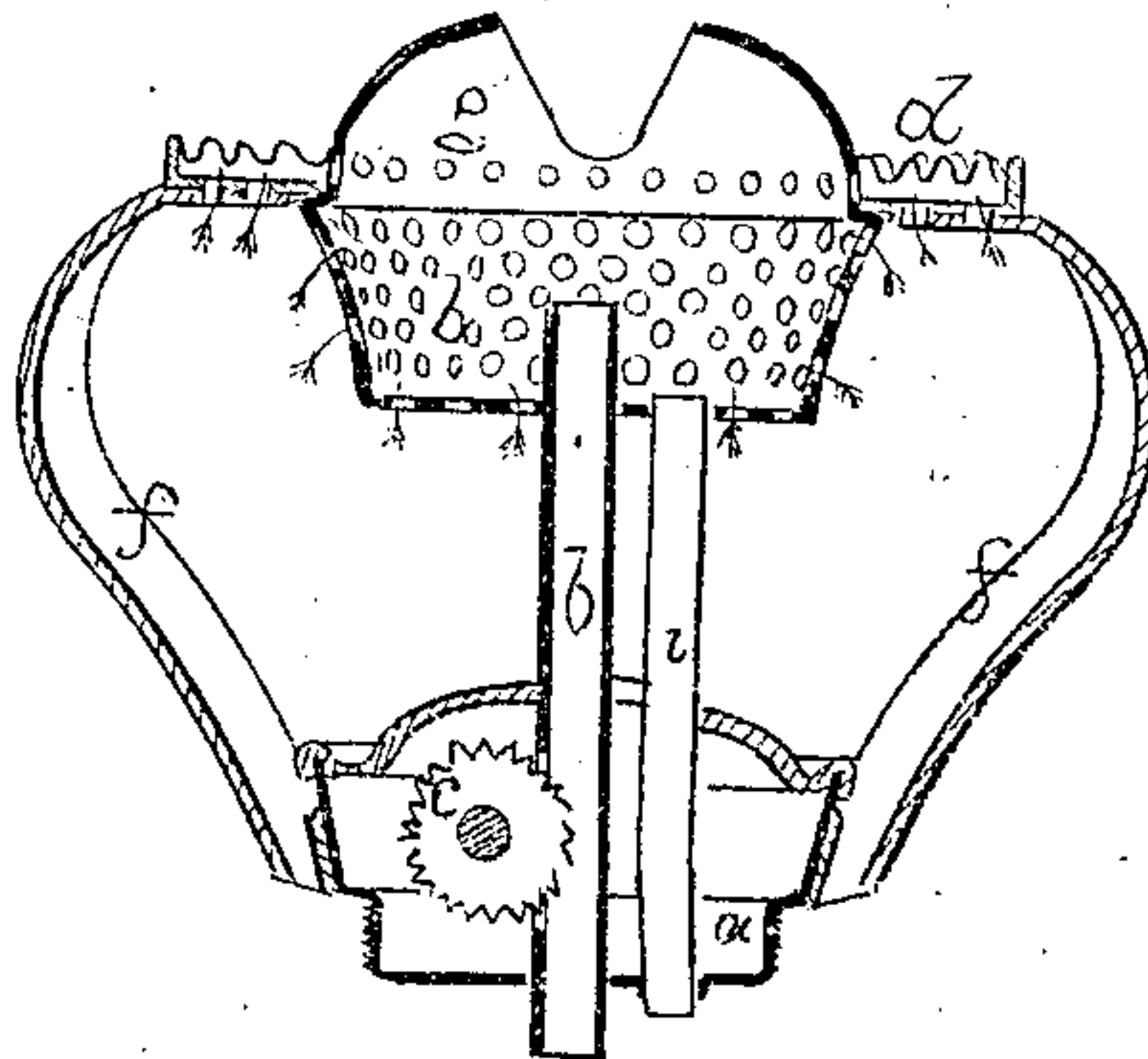
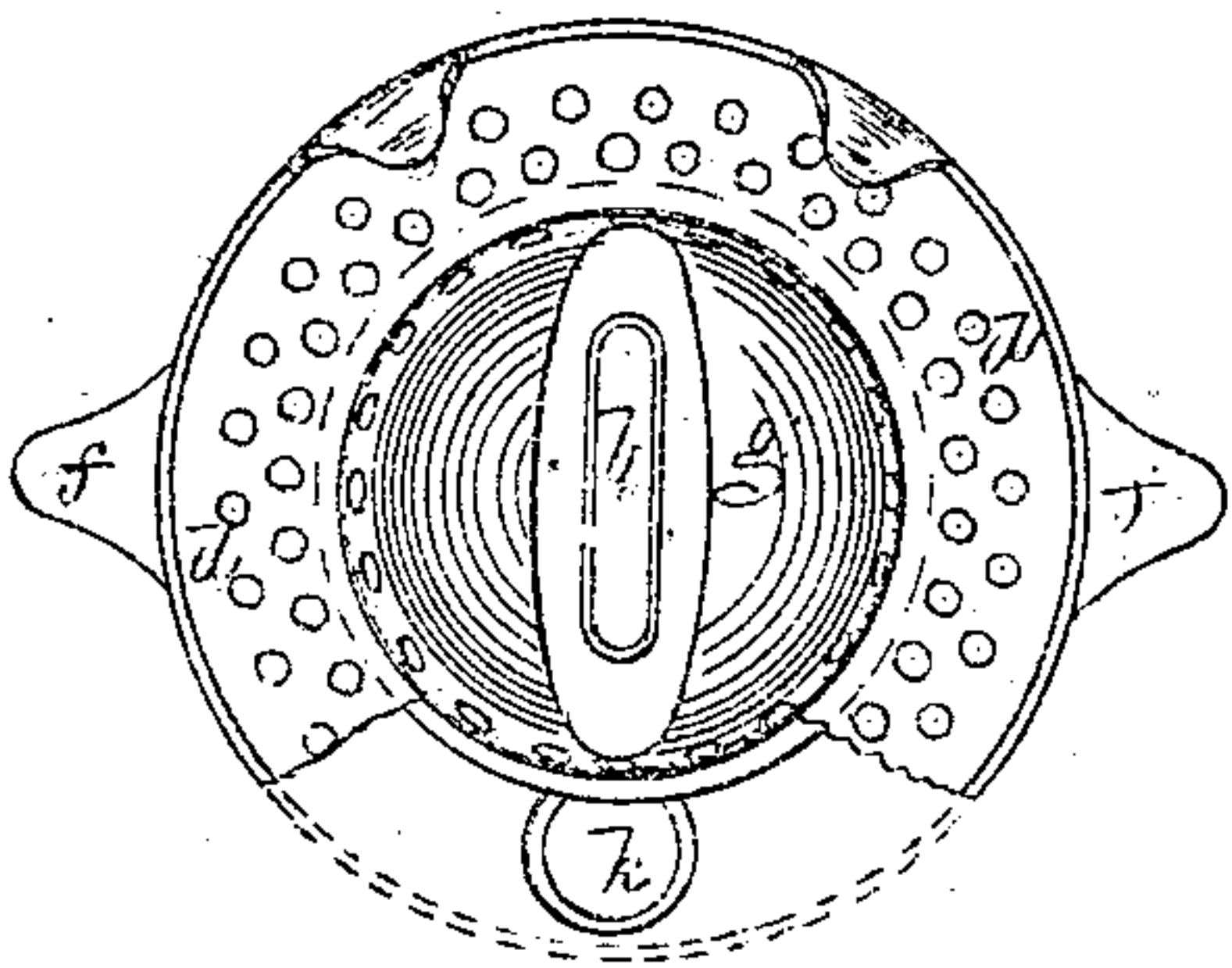


Fig. 3.



Witness

Chas H Smith
Geo Wacker

Hiram W. Hayden
per L. W. Lippell
Atty.

UNITED STATES PATENT OFFICE.

HIRAM W. HAYDEN, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 73,599, dated January 21, 1868.

To all whom it may concern:

Be it known that I, HIRAM W. HAYDEN, of Waterbury, in the county of New Haven and State of Connecticut, have invented, made, and applied to use a certain new and useful Improvement in Lamps; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of my said lamp as in use. Fig. 2 is an elevation of the same with the deflector and perforated air-chamber slipped down on the wick-tube, and Fig. 3 is a plan of said lamp.

Similar marks of reference denote the same parts.

The object of this invention is to give access to the wick-tube without disturbing the chimney and allow the flame to burn without smoke or smell when turned down very low, so as only to continue a light as a night-lamp.

My invention consists in a perforated air-chamber and deflector united together and fitted to slide upon the wick-tube or guides, in combination with a chimney-holder that is supported by arms that extend up from the burner-cap. Thereby free access is given to the wick for trimming or lighting when the chamber and deflector are slid down, and when slipped up to the chimney-holder the parts operate in a manner corresponding generally to those in an ordinary lamp.

In the drawings, *a* represents the screw-cap, carrying the wick-tube *b* and wick-raiser *c*, as usual.

d is a ring chimney holder or clamp for receiving the glass chimney, as usual; but this chimney-holder has an opening in the center, and is sustained by the arms *ff*, that extend to the burner-cap *a* and are firmly united to the respective parts.

The wick-tube *b* terminates a sufficient distance below the chimney-holder *d* to allow for the easy introduction of scissors to trim the wick.

The deflector *g* is of a size to fill the central opening of the ring chimney-holder *d*, and is formed with a flame-slot of the proper size and shape, but slightly larger than the wick-tube, to allow the said wick-tube to project through the same when in the position shown in Fig. 2. Below this deflector *g*, and united with it, is the perforated air-chamber *h*, formed of sheet metal, and foraminous both at the sides and bottom. An opening is made in the bottom of the chamber *h* corresponding to the wick-tube, and a guide rod or rods, *i*, aid in keeping the deflector and air-chamber in position when slipped up or down, and a slight curvature in such guide-rod forms a spring to hold the deflector and air-chamber when elevated.

When the parts are in the position shown in Fig. 1 the lamp will burn as usual; but there will be but little heat conducted to the cap *a*. When the parts are in the position shown in Fig. 2 a small flame may be burned without smoke or smell. The chimney *e* being undisturbed insures the required draft. There are no parts to become heated by being above the flame, and any vapors that might arise from the lamp are conducted into the flame by the deflector *g* and consumed.

In trimming the lamp any carbonaceous matters are excluded from the chamber *h* by the deflector *g*.

A thumb-piece, *k*, may be affixed to the chamber *h* to facilitate the moving thereof.

What I claim, and desire to secure by Letters Patent, is—

A perforated air chamber, *h*, and deflector *g*, fitted to slide vertically upon the wick-tube, in combination with the chimney-holder sustained by arms to the burner-cap, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature this 20th day of November, A. D. 1867.

HIRAM W. HAYDEN.

Witnesses:

CHAS. W. GILLETTE,
LOUIS D. GRIGGS.