

H. L. IVES.
Lamp.

No. 208,396.

Patented Sept. 24, 1878.

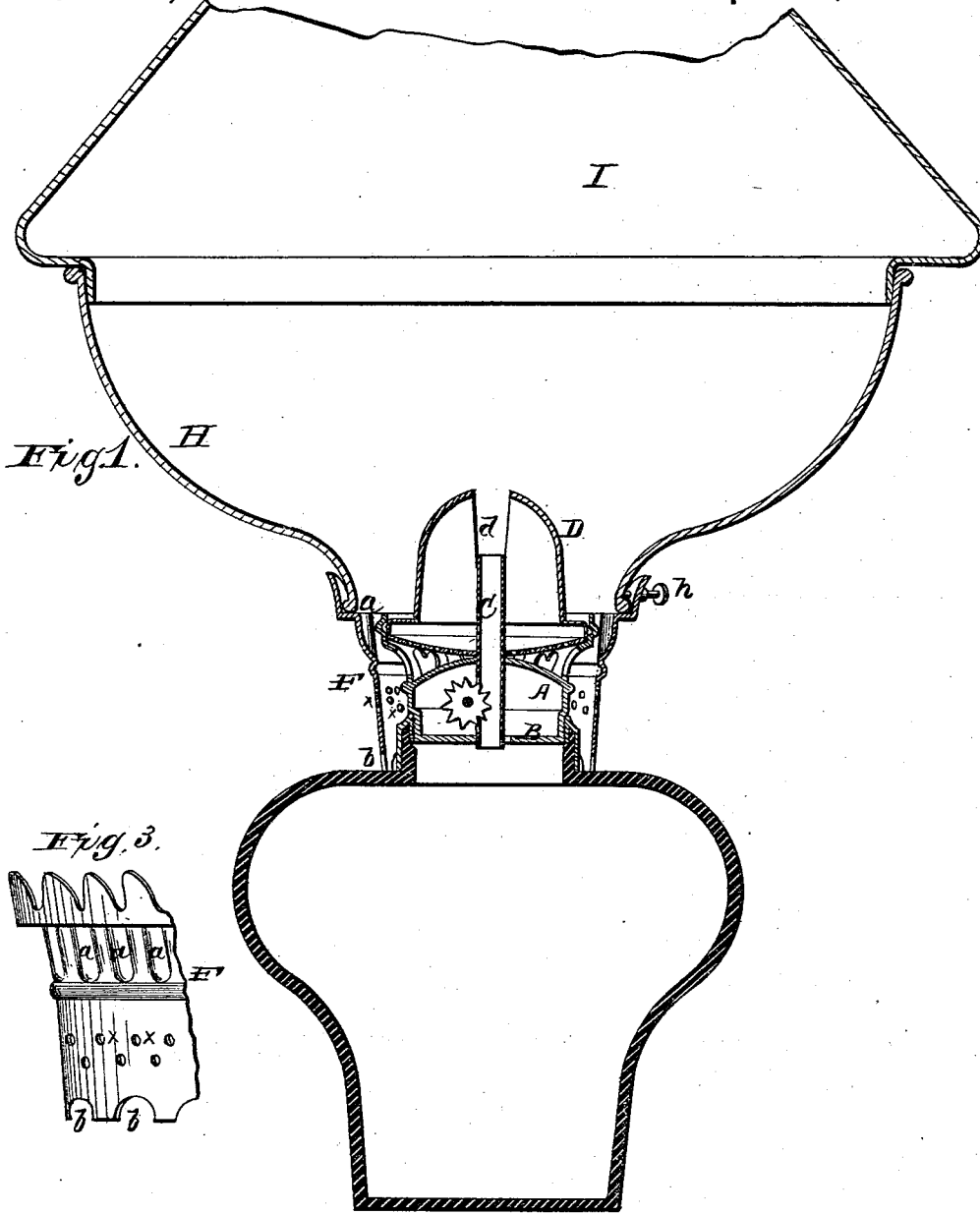


Fig. 1. H

Fig. 3.

Fig. 2.

WITNESSES
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HIRAM L. IVES, OF TROY, NEW YORK.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 208,396, dated September 24, 1878; application filed August 23, 1878.

To all whom it may concern:

Be it known that I, HIRAM L. IVES, of Troy, in the county of Rensselaer, and in the State of New York, have invented certain new and useful Improvements in Lamps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a lamp-burner with base and shade, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a vertical section of a lamp with my improved burner, base, and shade thereon. Figs. 2 and 3 are detailed views of parts of the burner.

My invention applies equally well to flat and round wick tube burners, and of any size.

A represents the body of the burner, with the usual screw at B to form the connection with the lamp. C is the wick-tube, and D the cone or cap over the same.

In the construction of my burner I close all openings in the top thereof, leaving no egress for the air excepting the flame-slot *d*, thereby forcing all of the air that goes into the bottom of the burner to the point of combustion.

The flame-slot *d* in the cone or cap D is cut below the top of the wick-tube C, as shown in Fig. 1, causing the air to draw out of the lower ends of the slot, and consequently spreading the flame very broadly.

Ordinarily burners are made with perforations through the base of the cone, or through the gallery of the burner, to admit of the air passing to the flame on the outside of the cone. I accomplish this through corrugations *a a* in the top of an auxiliary exterior shell, F, or by perforations in the gallery of said shell. The shell F surrounds the burner and rests on the body or reservoir G of the lamp. The object of this shell is to warm the air before it comes

in contact with the flame, which air is far superior for a proper combustion than if it were cold. The bottom of the shell F is made sufficiently broad to leave a considerable space between it and the collar of the lamp, and the bottom edge is scalloped, as shown at *b*, whereby strong currents of air are drawn against the collar of the lamp and bottom of the burner, keeping them cool and perfectly safe, at the same time heating the air before it passes into the flame. Air also passes into the shell through perforations *x x* in the side of the shell, and all of the air going into the chamber formed between the shell and burner becomes warmed before coming in contact with the flame, passing to the flame up through the cone, and also through the corrugations *a* around the top of the shell. The shell is secured by screwing the burner into the collar of the lamp.

As a result of this construction of the burner and shell I produce a very broad flame; consequently I am obliged to have a large space for the flame. Therefore I make a glass base, H, of spheroidal shape, on which I place a shade or globe, I, dispensing with an ordinary chimney. The glass base is secured to the shell F by a screw, *h*.

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

1. The combination, with a lamp burner and reservoir, of the exterior auxiliary shell, F, having scallops *b* at the bottom, perforations *x* in the sides, and corrugations *a* at the top, substantially as and for the purposes herein set forth.

2. The combination of the burner, the auxiliary shell F, and the glass base H, for the purposes specified.

3. The combination of the burner, the auxiliary shell F, glass base H, and shade I, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 30th day of July, 1878.

HIRAM L. IVES. [L. S.]

Witnesses:

ALVAH TRAVER,
ALEXANDER B. SLOCUM.