

G. A. BEIDLER.
 BURNERS AND LANTERNS.

No. 187,085.

Patented Feb. 6, 1877.

Fig. 1.

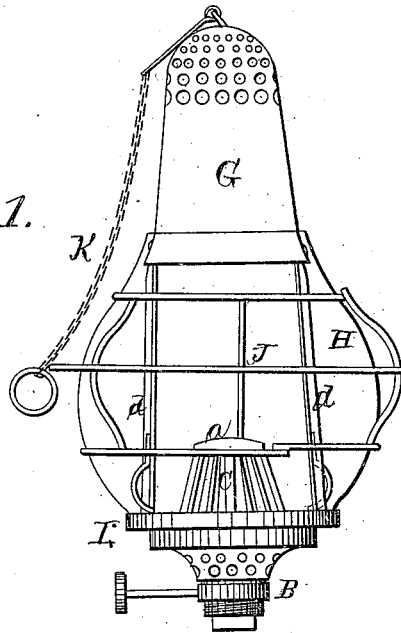


Fig. 2.

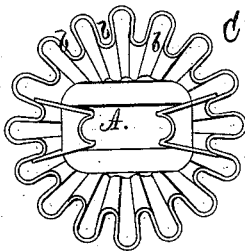


Fig. 3.

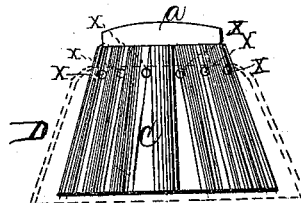
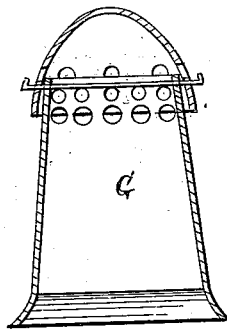


Fig. 4.



WITNESSES
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GEORGE A. BEIDLER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BURNERS AND LANTERNS.

Specification forming part of Letters Patent No. 187,085, dated February 6, 1877; application filed December 29, 1876.

To all whom it may concern:

Be it known that I, GEORGE A. BEIDLER, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented certain new and useful Improvements in Burner and Lantern; 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 burner for lamps and lanterns, to be used without a chimney, and in a lantern having its upper metal shell or top connected with the base or burner by metal connections passing inside of the usual globe, all as 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 side elevation of a lantern embodying my invention. Figs. 2 and 3 show the construction of the burner, and Fig. 4 shows a modification in the construction of the top of the lantern.

A represents the ordinary wick-tube, fastened, in the usual manner, in the screw-plug B, to be screwed into the neck of the oil-reservoir.

On the wick-tube B is fastened or placed a conical cap, C, having in its top an elongated slot or hole for the passage of the wick or blaze. On each side of this blaze-hole or blaze-slot is a turned-up lip, *a*, which lips are for the purpose of impinging the oxygen more directly upon the flame, and causing it to commingle therewith.

I prefer to make the cap C with a series of flutes or corrugations, *b*, running from the top to the lower edge, and entirely or partially around the cap, whereby a number of channels are formed, so as to convey a larger amount of oxygen to the flame.

In connection with this fluted or corrugated cap I may use an exterior shell or cov-

ering, D, attached to the cap C a short distance below the top. In this case the cap C is provided with a series of holes or openings *x*. By this means a double number of channels are formed to convey a double amount of oxygen to the flame, the openings *x* allowing the air between the cap and outer shell to escape to the flame.

G represents the upper shell or top of a lantern, and H is the ordinary globe used in lanterns. I is the base or burner of the lantern.

The top G and base or burner I are connected by means of metal strips, tubes, or other connections *d d*, passing inside of the globe H, so that the globe can be easily lifted off when desired.

The globe H may be provided with suitable exterior wire guards J, placed loosely or otherwise over the same.

The top G is closed at top and perforated, as shown; or it may be open and provided with a loosely-hinged cap, to prevent the air from blowing down into the same.

The top G may also be provided with a chain, K, or other suitable handle, for carrying the lantern.

Suitable perforated diaphragms may also be arranged both in the burner and in the lantern-top, if so desired, or deemed necessary.

The exterior shell or covering D may be used over the cap of any burner, so as to form, as it were, a cap which is single at the top and double at the bottom, suitable apertures being made in the inner part for the passage of the air.

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

1. In a lamp-burner, a conical cap, C, provided with longitudinal flutes or corrugations *b*, for the purposes herein set forth.
2. In a lamp-burner, a conical cap provided with longitudinal flutes or corrugations *b*, and turned-up lips *a a* on each side of the blaze-hole, substantially as set forth.
3. In a lamp-burner, the combination of the conical cap C, provided with longitudinal

flutes or corrugations *b* and apertures *x*, and the exterior shell or covering *D*, substantially as and for the purposes herein set forth.

4. The combination of the top *G* and the base or burner *I*, connected together by the straps *d d*, and the removable globe *H*, resting on the base *I*, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of December, 1876.

GEO. A. BEIDLER.

Witnesses:

C. L. EVERT,
FRANK GALT.