H. BEEBE.

LANTERN.

No. 169,511. Patented Nov. 2, 1875.

Fig. 1.

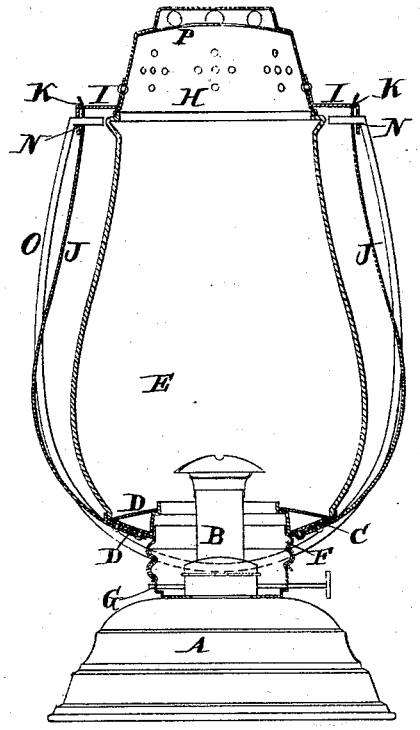
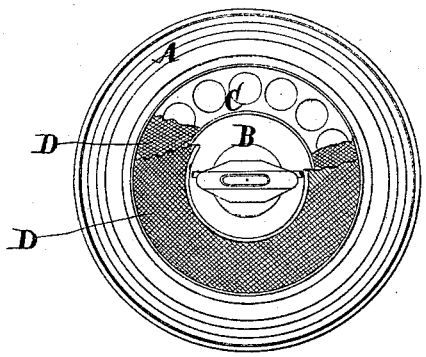


Fig. 2.



Witnesses.
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Chas. Wahlers.

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UNITED STATES PATENT OFFICE.

HENRY BEEBE, OF JERSEY CITY HEIGHTS, NEW JERSEY.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **169,511**, dated November 2, 1875; application filed October 4, 1875.

To all whom it may concern:

Be it known that I, HENRY BEEBE, of Jersey City Heights, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Lanterns, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical central section of my improvement. Fig. 2 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to certain improvements in lanterns; and consists of a novel construction and arrangement of parts, which are fully hereinafter described, and specifically pointed out in the claims.

In the drawing, the letter A designates the base of my lantern, to which is affixed a burner, B, and C is the perforated plate, which is attached to the lantern for ventilation. This plate C is provided on its upper or inner side with supplemental plates D D, two or more in number, which are preferably made of wire-gauze, but which may be made of any foraminous material. These plates D D are curved in opposite directions, one being concave and the other convex, and they are so arranged relatively to each other that an air-space is left between them, as shown in Fig. 1.

It is common in lanterns, as hitherto made, with a ventilating-plate, C, that the flame is disturbed, and in some cases even extinguished, when the lantern is swung back and forward (as when used for signaling on railroads) by the sudden or violent rush of air thereby occasioned. This is obviated by the use of the plates D D, by which gusts of air are prevented from entering the lantern, and especially by the peculiar arrangement of the plates, whereby an air-cushion is formed, which checks the influence of external currents of air, while it does not preclude a uniform influx of air to the flame.

The ventilating-plate C forms a support for the lantern-globe E, the lower end of the globe being fitted and resting within a flange formed on the edge of the plate. From the plate C depends a sheet-metal collar, F, which is formed in one piece with the plate, and which forms a sheet-metal screw, while it is fitted to another sheet-metal screw-collar, G, which is formed in one piece with the base A, and surrounding the burner.

When it is desired to remove the base A from the plate C, or, more properly, from the globe E, in order to permit of lighting the burner, it is only necessary to turn the parts in the proper direction on each other, when, by the action of the screw-thread, the base becomes loosened.

The cap H of the lantern has the ordinary ventilating-holes, and it is fitted to the upper end of the globe E in the usual manner. From the cap project radial arms I, of a number corresponding to the number of guards J that are used on the lantern. These guards J consist of strips of metal bent to the shape of the globe E, and the lower ends of the guards are fastened to the plate C, while the upper ends are connected to the radial arms I in the following manner: The arms I are bent downward at right angles, or nearly so, upon the guards, and next the bent part is formed a slot, K, of such length that the upper ends of the guards may be placed in them. The bent parts of the arms I, as well as the guards J, are provided with apertures N, which coincide with each other, and through the apertures are passed the ends of the bail O of the lantern, which bail is bent accordingly. This bail is made of elastic metal, which is so gaged that the ends passing through the apertures N have a tendency to bind themselves in place, and thus a firm fastening is obtained, not only for the guards, but also for the cap H and for the bail.

It is obvious that this last-named fastening readily permits of detaching the parts from each other, and thus the globe may be removed for cleaning, or for any other purpose.

In the cap H is secured a deflecting-plate, P, which is made of perforated sheet metal, so that it does not interfere with the escape of the products of combustion, while it prevents downward currents of air from disturbing the steadiness of the flame.

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

1. The ventilating-plate C, having a circumferential flange, which forms a support for the globe, and constructed with a depending

screw-collar, F, in combination with the concavo-convex foraminous plates D D and the base A, having a screw-collar, G, all substantially as shown and described, for the object specified.

2. The combination of the radial arms I of the cap H of the lantern, having slots K, with the lantern-guards J, both the arms and the guards having apertures N, and with the bail O, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

HENRY BEEBE. [L. S.]

Witnesses:
E. F. KASTENHUBER,
J. VAN SANTVOORD.