

Lantern.

Patented Aug. 18, 1863.

A detailed technical drawing of a mechanical device, likely a steam engine component, showing a large cylindrical body with various internal and external parts labeled with letters. The device has a flared base and a complex internal structure with a central vertical rod and a horizontal rod. The drawing is labeled with letters A through O, indicating specific components.

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IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. 39,586, dated August 18, 1863.

To all whom it may concern:

Be it known that I, WILLIAM PORTER, of the city, county, and State of New York, have invented a new and useful Improvement in Lanterns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of a lantern constructed according to my invention; Fig. 2, a vertical central section of the lower part of the same, to which my improvement is applied.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in an improved manner of securing or fitting the cap or lamp-top in the body of the lamp, whereby the usual screw for that purpose is avoided and the shaft of the wick-adjusting mechanism always brought in a proper position to admit of the lamp being fitted or secured in the lantern without any difficulty whatever.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the glass portion of a lantern, B the metal cap or top, C the guards, and D the metal rim at the bottom of the glass A.

E is a lamp, which is secured to a base, F, having a cylinder, G, attached to it concentric with the lamp, and of such diameter as to receive the rim D at the bottom of the glass A. The upper edge of the cylinder G has two notches, *a a*, made in it at opposite points. These notches are vertical at their upper parts, and curved at their lower parts, as shown in Fig. 1, and they receive two horizontal pins, *b b*, which are attached to the rim D. To the outer side of the cylinder G there is attached an elastic plate, H, which has a hole, *c*, to receive one of the pins *b*. This spring or elastic plate H serves as a catch to hold the pins in the notches *a*, and insure a proper connection of the cylinder G, and consequently of the lamp E, to the lantern.

I represents the cap of the lamp, in which the wick-tube J is secured. This wick-tube is flat, and the cap has a horizontal shaft, K, fitted in it, on which a notched or serrated wheel, L, is fitted, said wheel working through a slot in the wick-tube, as usual. The shaft K is sufficiently long to project beyond the rim D, and fits in a notch, *d*, in the upper edge of the cylinder G, when the rim D is fitted in G. By this means the wick M may raised and lowered without detaching the lamp from the lantern. The cap I is not screwed into a socket in the lamp, as is usually done, but is fitted into a socket, N, provided with a leather, cork, or other suitable ring, *e*, into which the lower part, *f*, of the cap I is fitted. (See Fig. 2.) The ring *e* serves as a packing to fit snugly to the part *f* of the cap, and insure a tight or snug fit. The advantage of this arrangement over the screw-cap is that the cap in my improvement may be fitted or shoved directly into its socket N with the shaft K in line with or directly over the notch *d* in the upper edge of the cylinder G, whereas when a screw-cap is used it is frequently difficult to bring the shaft K over the notch *d* and have the cap screwed tightly into the socket.

This invention does not augment the cost of the construction of the lantern—that is to say, lanterns may be constructed with my improvement equally as cheap as the ordinary kind.

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

The socket N, provided with a ring, *e*, of leather, cork, or other suitable material, in connection with the smooth cylindrical part *f* of the cap I, substantially as and for the purpose herein set forth.

WM. PORTER.

Witnesses:

ROB. H. LOUDEN,
GEO. W. REED.