H. C. KELLY.

LANTERN.

No. 181,685. Patented Aug. 29, 1876

Fig. 1

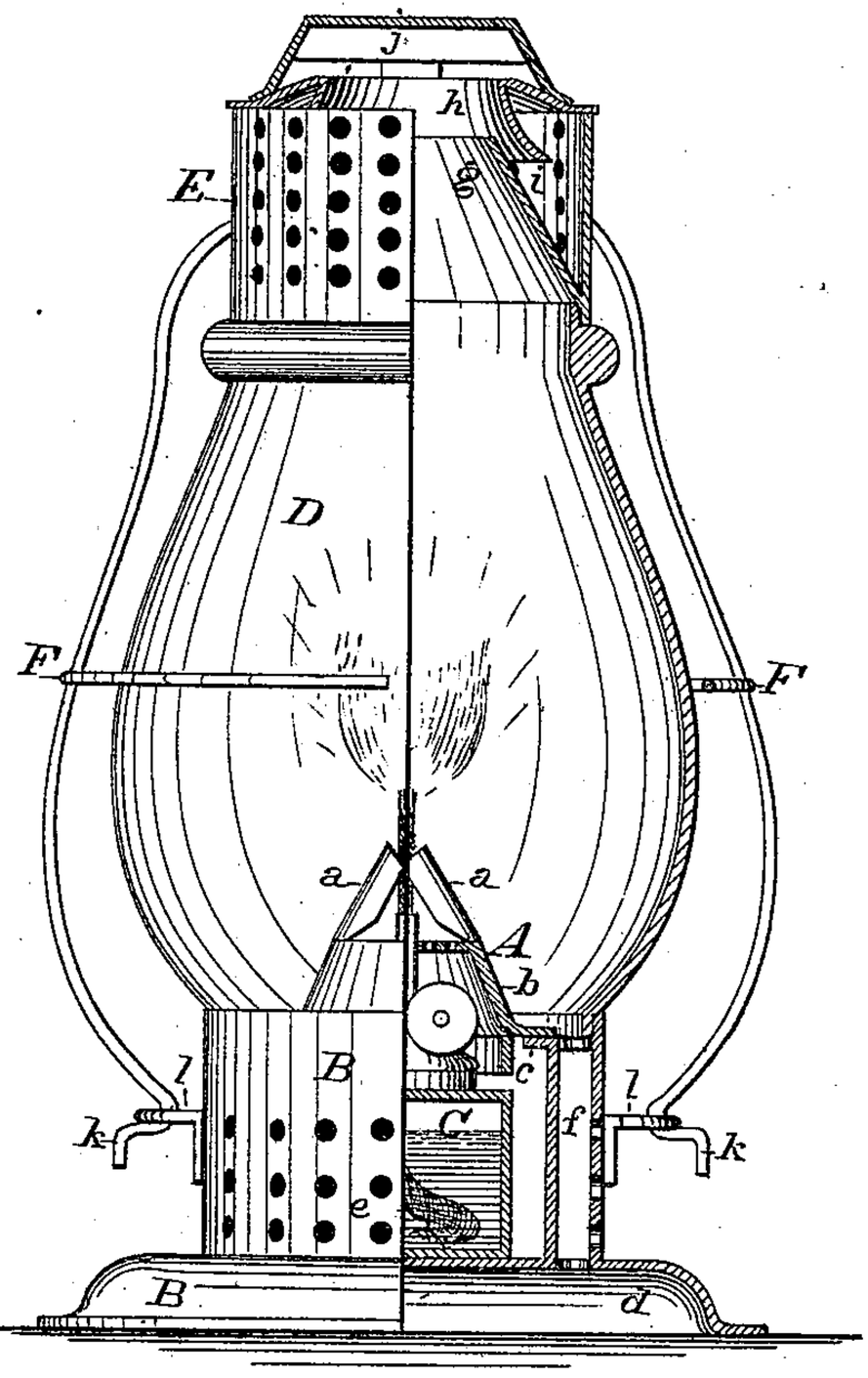
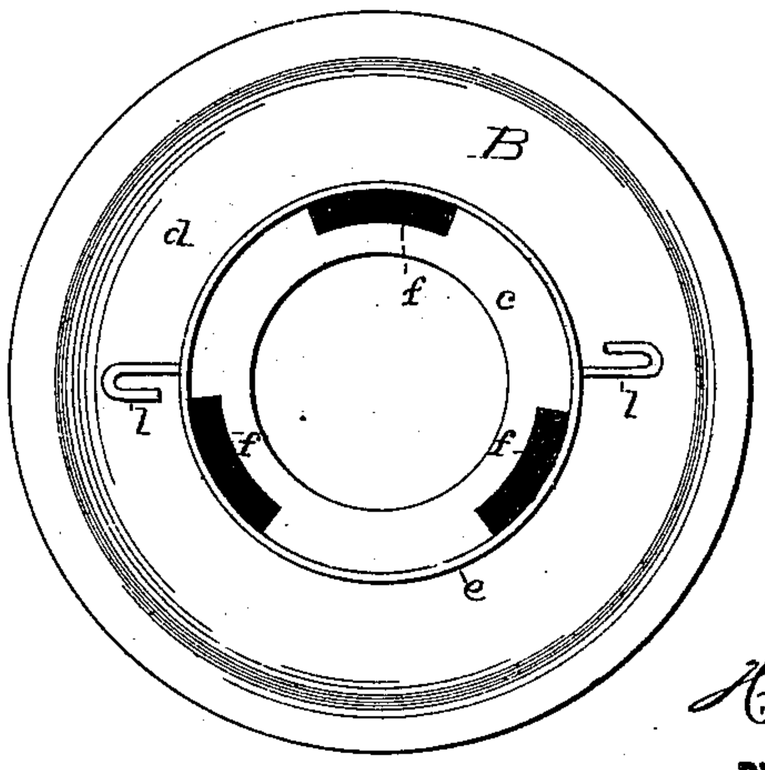


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY C. KELLY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO AUGUST HELLMUTH, OF SAME PLACE.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **181,685**, dated August 29, 1876; application filed July 27, 1876.

To all whom it may concern:

Be it known that I, HENRY C. KELLY, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Lantern; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side elevation with one-half in vertical section; Fig. 2, a detail plan view of the base.

My invention relates to a novel construction of lantern; and it consists in the construction and arrangement of the burner and deflectors, the construction of the base, provided with tubes for supplying air to the burner, the construction of the outlet for the hot air above, and the means for attaching the guards to the base-piece, and thus connecting and holding the several parts together, all as hereinafter more fully described.

In the accompanying drawing, A represents the burner, B the supporting-base, and C the oil-receptacle, of my improved lantern. The burner is constructed with deflectors *a* at the top, which may be set at an angle and serve to assist in supplying the air to the burner heated, and also concentrate the heat of the flame. The usual toothed wheels and stem for the elevation of the wick are located in a cap, *b*, which latter is perforated immediately about the wick-tube, through which perforations and the triangular openings between the deflectors on the sides the air is fed to the flame in a heated condition, so that while giving intensity to the flame, they co-operate also to preserve a steady jet. The outer edge of the cap *b* forms a flange, which fits upon a rim, *c*, of the base-piece B, and holds the burner and oil-receptacle in proper position. The said base-piece consists of a disk, *d*, raised centrally, upon which raised portion a perforated cylinder, *e*, is located. This cylinder, together with its rim *c*, forms an annular chamber about the oil-receptacle, which opens to the outer air through the perforations all around, and at the bottom for a circulation of air to keep the oil-receptacle cool; but this annular space does not communicate with the space about the burner, as the latter is fed by independent tubes *f*, which pass up through the annular space, and supply the burner with air from beneath the lantern. This arrangement of perforations upon the side of the cylinder *e* keeps the oil-receptacle cool, while their location does not involve a flickering of the flame when the lantern is moved, for the reason that the supply-tubes do not connect with the annular space, but receive their air from below. The outlet at the top of the chimney or globe D consists of a laterally-perforated cylindrical cap-piece, E, which fits upon the top of the chimney or globe, and is provided with two flanges, *g h*, of which *g* is attached to the lower portion of the cap-piece, and *h* to the upper portion of the same, and both inclined inwardly, so as to leave an opening, *i*, all around. Upon the top of the outlet in the cap-piece is located a plate, *j*, to prevent the wind from blowing down the chimney. The advantage which this construction of the cap-piece is designed to secure is to prevent the flickering or blowing out of the flame, when the lantern is moved quickly, by the passage of a current of air down the chimney. With the cap-piece constructed as described, the movement of the lantern only increases the draft, for the air entering the perforations upon the sides strikes the flanges *g* and *h*, and, being deflected thereby, passes through the opening *i* upwardly and outwardly. F are wire guards arranged about the chimney to protect it from accidental breakage, which wire guards are attached to the cap-piece above, and serve to hold the cap-piece, chimney, and base firmly together.

In making the parts quickly detachable and easily fastened again by a simple device, the lower portion of the upright guards I bend into the form of catches *k*, and being made of a springing material they are arranged to engage with hooks *l* on the base-piece by being pressed inwardly, which engagement serves to hold all the parts of the lantern securely together.

Referring to the construction of the burner, I am aware that it is not new to perforate the horizontal portion of the cap-piece immediately about the wick-tube, and I therefore

limit this feature of my invention to the combination of the perforated cap-piece and wick-tube with the deflectors *a*, which deflectors, being made in two separate inclined pieces, dispense with the cone ordinarily employed, and are of much simpler and cheaper construction.

I am aware also that the wire guards have been secured to flat plates attached to the base-piece, one of which plates is perforated, and the other slotted and provided with a retaining-button or latch, and I therefore limit this feature of my invention to the guards having catches *k*, as shown, combined with the hooks on the base-piece, opening laterally, for the ready insertion and removal of the spring-guards.

Having thus described my invention, what I claim as new is—

1. The burner composed of the perforated cap *b* and the wick-tube, in combination with the deflectors *a a*, as and for the purpose described.

2. The base consisting of raised disk *d*, perforated cylinder *e*, having rim *c*, and the supply-tubes *f*, arranged as described, in combination with the oil-receptacle, having a burner with cap *b*, substantially as and for the purpose described.

3. The laterally-perforated cap-piece E, having flanges *g h* and raised plate *j*, combined with the chimney, and adapted to be held thereupon, for the purpose described.

4. The base-piece B, having hooks *l*, opening laterally, in combination with the guards attached to a cap-piece, and having catches *k*, adapted to secure the parts together, substantially as described.

The above specification of my invention signed by me this 19th day of July, A. D. 1876.

HENRY C. KELLY.

Witnesses:
AUGUST HELLMUTH,
ROBERT BLUME.