

O. COOK.
Light-House Lantern.

No. 162,802.

Patented May 4, 1875.

Fig. 1

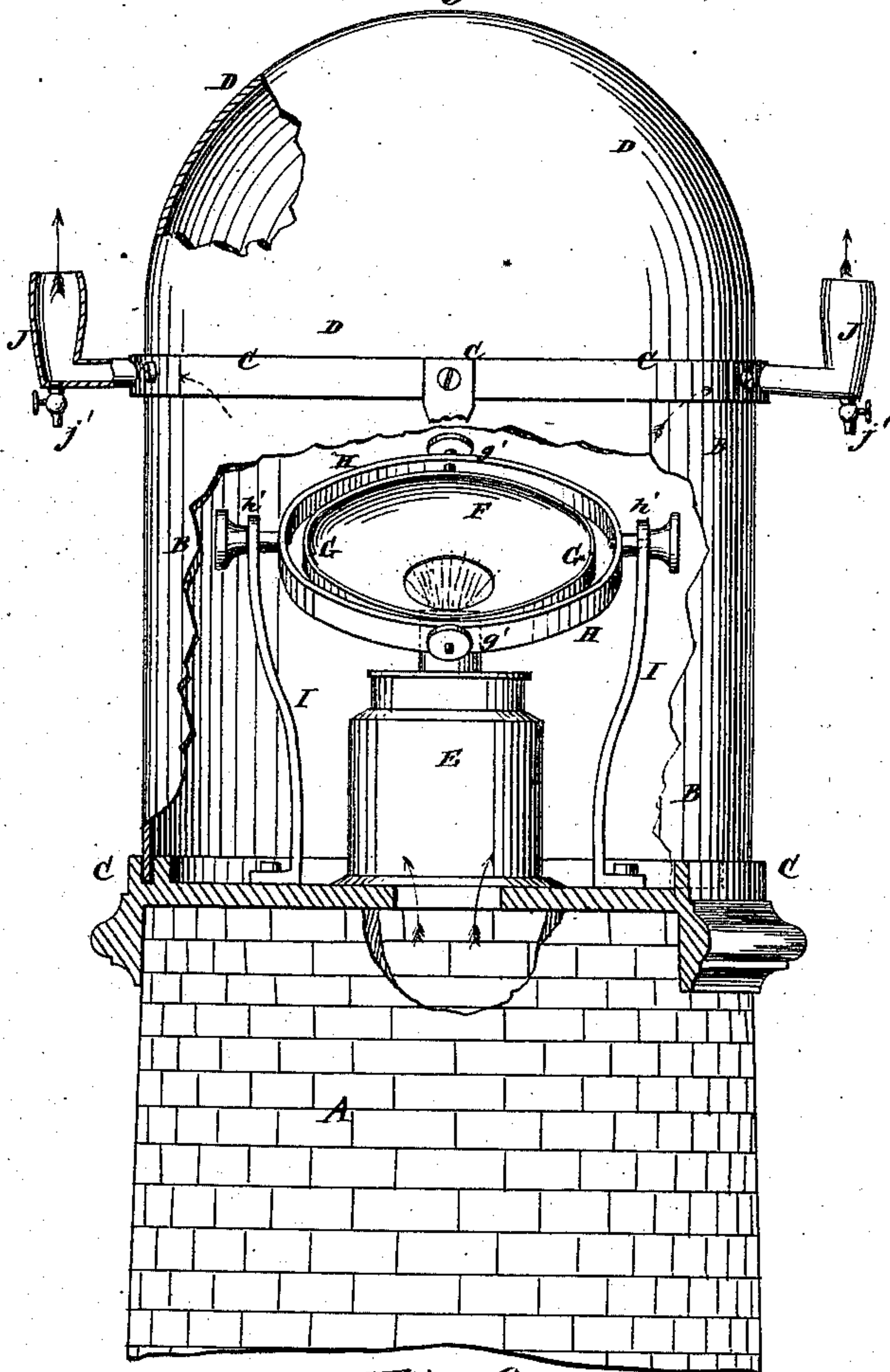


Fig. 2

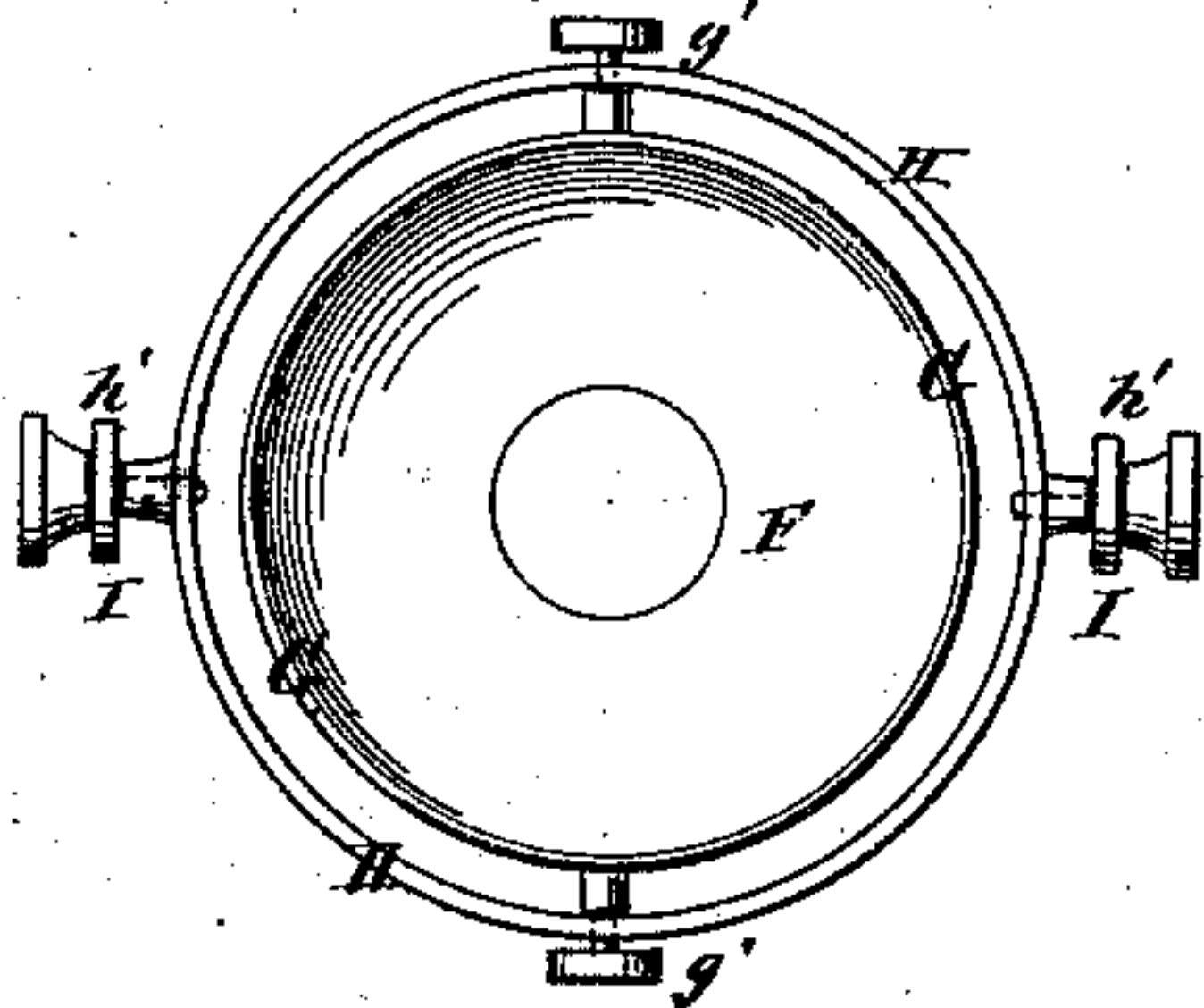
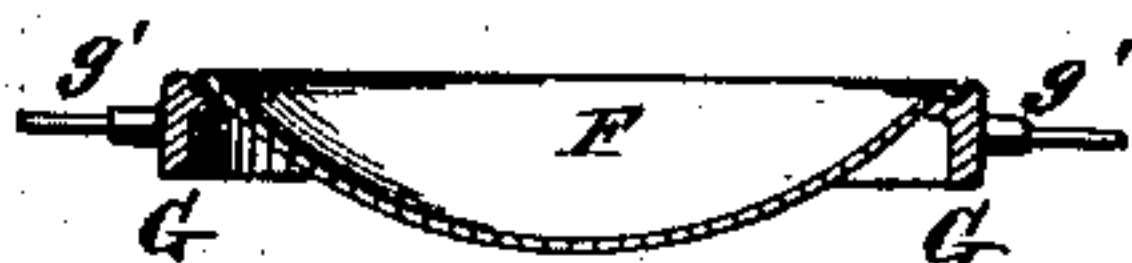


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

OLIVER COOK, OF DARIEN, (ROWAYTON POST-OFFICE,) CONNECTICUT.

IMPROVEMENT IN LIGHT-HOUSE LANTERNS.

Specification forming part of Letters Patent No. **162,802**, dated May 4, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, OLIVER COOK, of Darien, (Rowayton Post-Office,) in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Light-House Lanterns, of which the following is a specification:

Figure 1 is a side view of a light-house to which my improvement has been applied, parts being broken away to show the construction. Fig. 2 is the top view of the reflector and its gimbal. Fig. 3 is a cross-section of the reflector and the inner ring of the gimbal.

Similar letters of reference indicate corresponding parts.

The object of this invention is to enable the light from a light-house to be thrown to a greater distance than is possible with the ordinary construction of light-houses, especially in cloudy and foggy weather.

The invention consists in a light-house lantern provided with a glass dome or cover, and in the combination of the concave-ring reflector and the gimbal, provided with clamping screw-pivots, with the lamp and the glass dome or cover of a light-house lantern, as hereinafter fully described.

A represents the tower of the light-house, which is constructed in the ordinary manner, and upon the top of which is secured the lantern, the sides B of which are made of glass, secured to and supported by a frame, C, firmly secured to the top of the tower A. The top D of the lantern or lamp-chamber is made of glass, arched in the form of a dome, which is supported by and attached to the lantern-frame C. The glass dome D may be made in one piece or in sections, as may be desired. E is the lamp, about the construction of which there is nothing new. F is the reflector, which is a circular concave disk with a hole through its center, through which the flame of the lamp projects. The edge of the reflector F is secured to a ring, G, which is pivoted at its opposite sides to the opposite sides of the outer ring H by two screws, g, which ring H is

made concentric with it. The ring H, at its opposite sides and midway between the pivoting-screws g', is pivoted by two screws, h, to two standards or brackets, I, attached to the base or frame of the lantern. The pivots of the gimbal G H are made as screws to enable them to clamp the rings of the gimbal in place when the reflector F is adjusted in the proper position to throw the light vertically or at an inclination, as may be desired.

By this construction the light may be thrown upward against the clouds, and will be reflected by said clouds so that it can be seen at a much greater distance than is possible when the light is thrown from the lantern in a horizontal direction. The adjustment of the reflector F must depend upon the state of the air. The gas from the lamp escapes from the lantern through two or more elbow-pipes, J, the upwardly-projecting arms of which may be made funnel-shaped to increase the draft through them. The lower arms of the pipes J incline slightly downward, so that any rain that may fall into the open upper ends of the said pipes cannot flow into the lantern, but will escape through small pipes j', connected with said pipes at their angles, as shown in Fig. 1. The air to support combustion may be admitted through openings in the bottom of the lantern.

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

1. A light-house lantern provided with a glass dome or cover, substantially as herein shown and described.

2. The combination of the concave-ring reflector F and the gimbal G H, provided with clamping screw-pivots g' h', with the lamp E and the glass dome or cover of a light-house lantern, substantially as herein shown and described.

OLIVER COOK.

Witnesses:

WILLIAM T. CRAW,
GEORGE C. SCOFIELD.