C. H. ROCKWELL.
Lamp or Lantern.

No. 205,422. Patented June 25, 1878.

Fig. 1

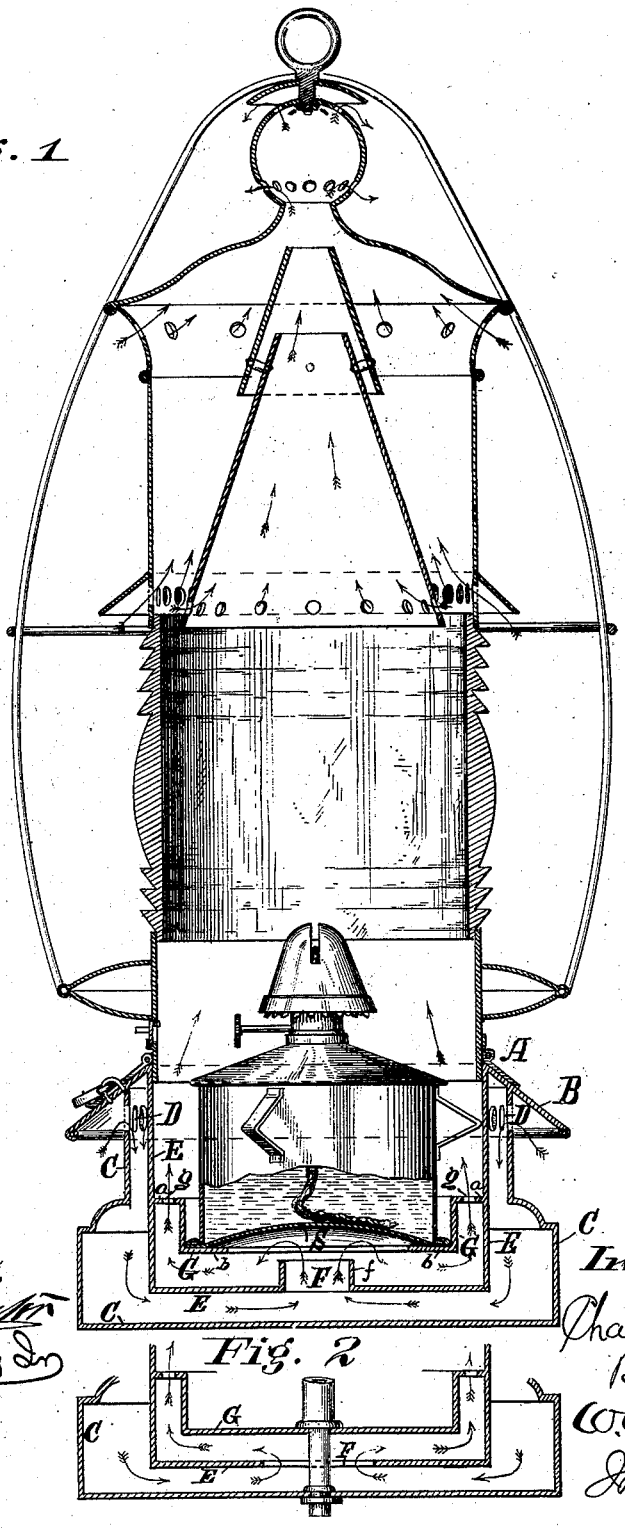

Fig. 2

Attests
John Tolley Jr

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W. C. Strawbridge
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UNITED STATES PATENT OFFICE.

CHARLES H. ROCKWELL, OF CHATHAM, MASSACHUSETTS.

IMPROVEMENT IN LAMPS OR LANTERNS.

Specification forming part of Letters Patent No. **205,422**, dated June 25, 1878; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, CHARLES HENRY ROCKWELL, of Chatham, Barnstable county, Massachusetts, have invented a new and useful Improvement in Lamps or Lanterns, of which I do hereby declare the following to be a full, clear, and precise description, and sufficient to enable those skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification, and of which—

Figure 1 is a central sectional elevation of a lamp embodying my improvements and adapted to burn oil, and Fig. 2 a similar view of the base of a lamp adapted to burn gas.

Similar letters of reference indicate corresponding parts.

My invention relates more particularly to the class of lamps which are used for outdoor purposes, where the light is exposed to currents of air, and where the requirements are that the light shall be protected from drafts, rain, and snow, so as to be practically inextinguishable, and is adapted to be applied to signal and beacon lights, ships' lights, street-lamps, and the like.

My invention consists substantially as hereinafter set forth and claimed.

The improvements are mainly applied to the lower part of the lantern, and, instead of putting the lamp in from the bottom, the lamp-body is hinged at A, so as to open upon or near the line of the top of the lamp, the lamp being put in from above. Below this opening, upon the outside of the lamp-body, a circumferential rain-guard, B, is placed, so as to encircle the lamp-body. It is angled downward at about forty-five degrees. Beneath this guard a series of ventilating-holes, D, are made into the outer shell or base C of the lamp. These holes are covered by perforated tin, gauze-wire, or the like, to exclude insects. The air enters through these holes, and passes into the bottom of the lantern.

Inside the outer shell or base proper of the lantern there is an interior lining, E, which commences at or near the top of the rain-guard, and goes down to within a short distance of the bottom of the base. In connection with the outer shell it provides an annular chamber about the lamp. The bottom of the lining is centrally provided with an orifice, F, having a vertical lip, *f*, around it.

To the inside of the lining there is affixed the lamp-shelf G, which is formed of metal, making two angles from the inside lining. The upper face *a* of this shelf is perforated with holes *g* for the passage of the air, and on the lower face *b*, formed by the lower angle, the lamp rests. The wind, therefore, enters beneath the rain-guard, through the gauze-protected holes, and passes into the base of the lantern between the outer shell and the lining, and up through the orifice in the center of the lining. It then strikes the bottom S of the lamp, which is made concave, and is deflected toward the side, and then passes up through the holes in the upper part of the lamp-shelf to the flame.

The upper part of the lantern, where it is hinged, shuts inside the lower part with a lip, *c*, which prevents air from entering to the flame to affect its steadiness. An adequate supply of air is thus secured to the light, and at the same time such air is obliged to make so many turns before reaching the flame that there is no direct force sufficient to extinguish the latter. The close bottom of the outer shell prevents any air getting to the flame except as aforesaid.

The invention is applicable to either oil or gas lamps, the only difference being that for gas-lights the pipe is introduced through the bottom, and the lamp-shelf forms a tight collar around the pipe, as shown in Fig. 2.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In combination with the outer shell or base C of a lantern, provided with the air-inlets D, the interior annular diaphragm or lining E, provided with an orifice, F, and the lamp-shelf G, constructed as described, and provided with holes *g*, the whole arranged to form a circuitous air-passage, substantially as and for the purposes set forth.

In testimony whereof I have hereunto signed my name this 5th day of April, A. D. 1878.

CHARLES H. ROCKWELL.

In presence of—
J. BONSALL TAYLOR,
W. C. STRAWBRIDGE.