L. F. BETTS.

Lanterns.

No. 141,311. Patented July 29, 1873.

FIG. 2.

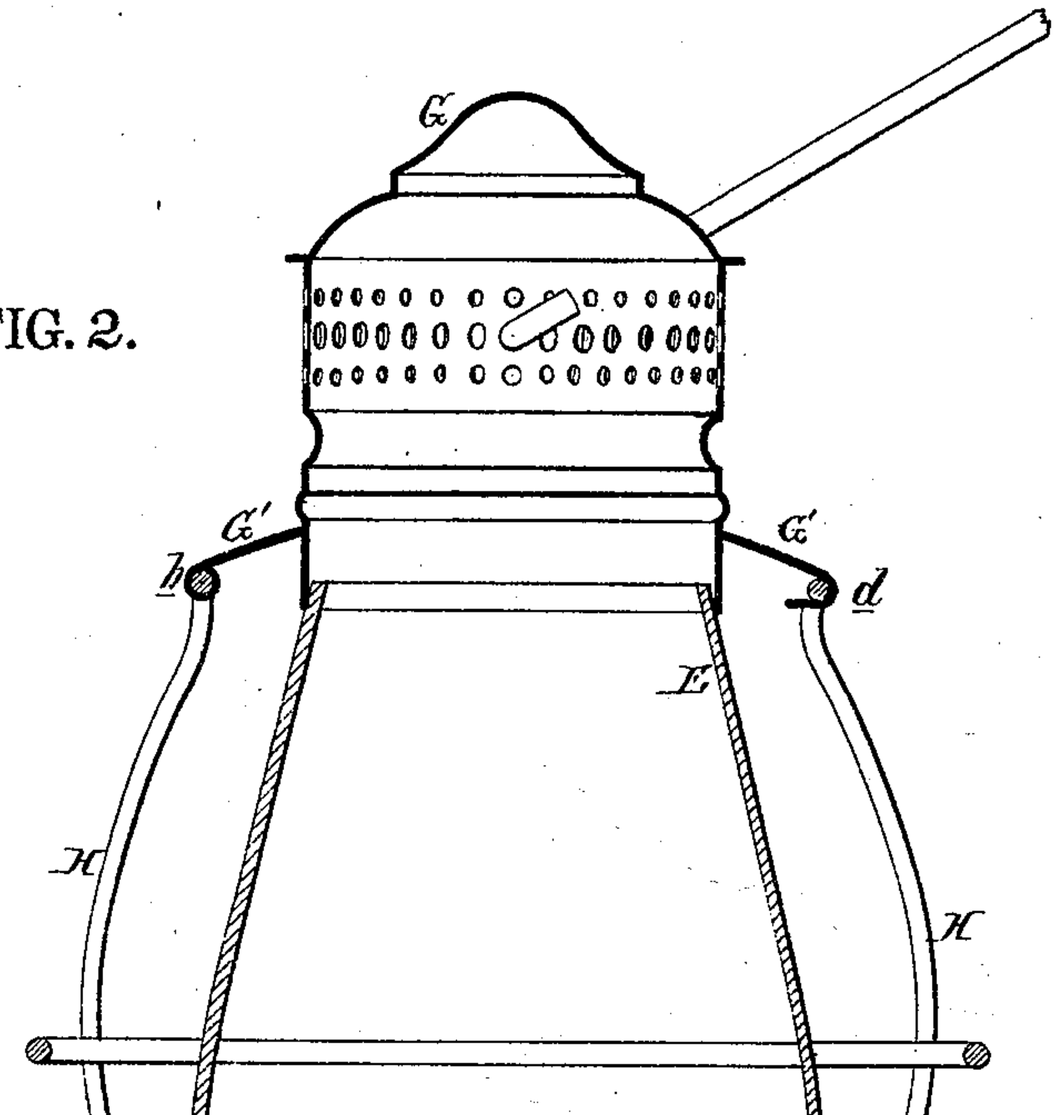


FIG. 3.

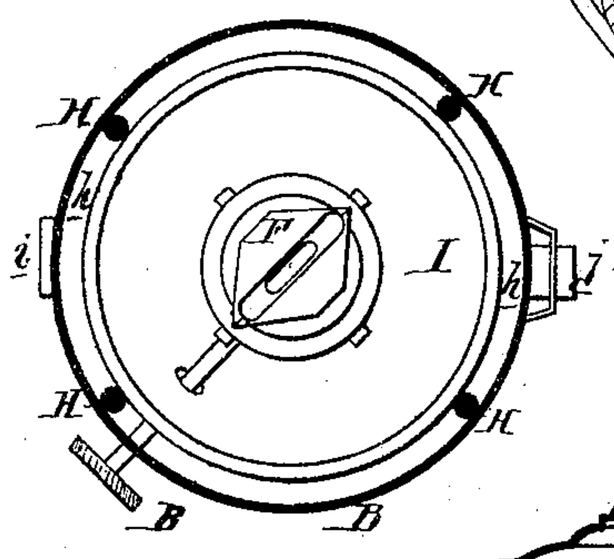
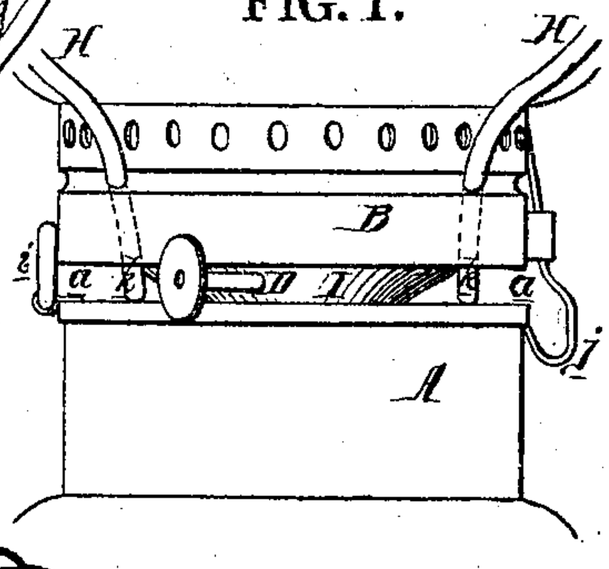


FIG. 1.



WITNESSES. Thomas McIlvain
Harry Smith

Lewis F. Betts
by his Attys.
Strwson and Son

UNITED STATES PATENT OFFICE.

LEWIS F. BETTS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **141,311**, dated July 29, 1873; application filed October 29, 1872.

To all whom it may concern:

Be it known that I, LEWIS F. BETTS, of Philadelphia, Pennsylvania, have invented Improvements in Lanterns, of which the following is a specification:

The objects of my invention are, first, to simplify the construction of the upper part of a lantern; and, second, to reduce the strain upon the hinge by which the oil-reservoir is connected to the body.

The first of these objects is attained by hinging and connecting the dome G of the lantern to the wire frame or guards H by means of its flange G′, which, at one side of the dome, is simply wrapped around the guards so as to form a hinge, *b*, and at the opposite side is bent to the form of a hook, also adapted to the guard-wires. By thus forming both the hinge and hook in one piece with the usual flange G′ of the dome the usual separate hinge and hook, which add to the cost of the lantern, and which require to be soldered or riveted to the flange, can be dispensed with.

If air were permitted to pass uninterruptedly through the space *a* between the two portions of the lantern to the burner, there would, in carrying the lantern about, be a constant flickering, and in some cases an extinguishing of the flame. To prevent this, I attach a cup-shaped deflector, I, to the lower portion of the burner, and extend the same upward to a point above the space *a* so as to form a narrow annular space, *h*, between the same and the body of the lantern, through which the air can pass upward to feed the flame, without disturbing the latter. In carrying the lantern, rays of light will be directed downward through the spaces *a* and *h* onto the ground. In the present instance the body of the lantern is hinged to the oil-reservoir at *i*, and secured to the same at a point opposite the hinge by a spring-catch, *j*; but other connections may be used.

The lower ends *k* of the guard-wires H extend through the body of the lantern, and rest upon the top of the oil-reservoir, as shown in Figs. 1 and 2, thus supporting the upper portion of the lantern, and reducing the strain upon the hinge or other connections. They also fit snugly in the annular space *h* between the deflector and the body of the lantern, as shown in the transverse section, Fig. 3, thus bracing the upper portion of the lantern, and preventing any twisting action upon the hinge and spring-catch.

I claim as my invention—

1. The hinge *b* and hook *d*, formed in one piece with the flange G′ of the dome of the lantern, and adapted to the guard-wires H, substantially as herein described.

2. The combination, with the hinge *i* and spring-catch *j*, or other equivalent connections, of legs *k* extending between the body of the lantern and the deflector I, and resting on the top of the oil-reservoir, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS F. BETTS.

Witnesses:

WM. A. STEEL,

JOHN K. RUPERTUS.