(No Model.)

F. DIETZ.

TUBULAR LANTERN.

No. 395,489. Patented Jan. 1, 1889.

Fig. 1.

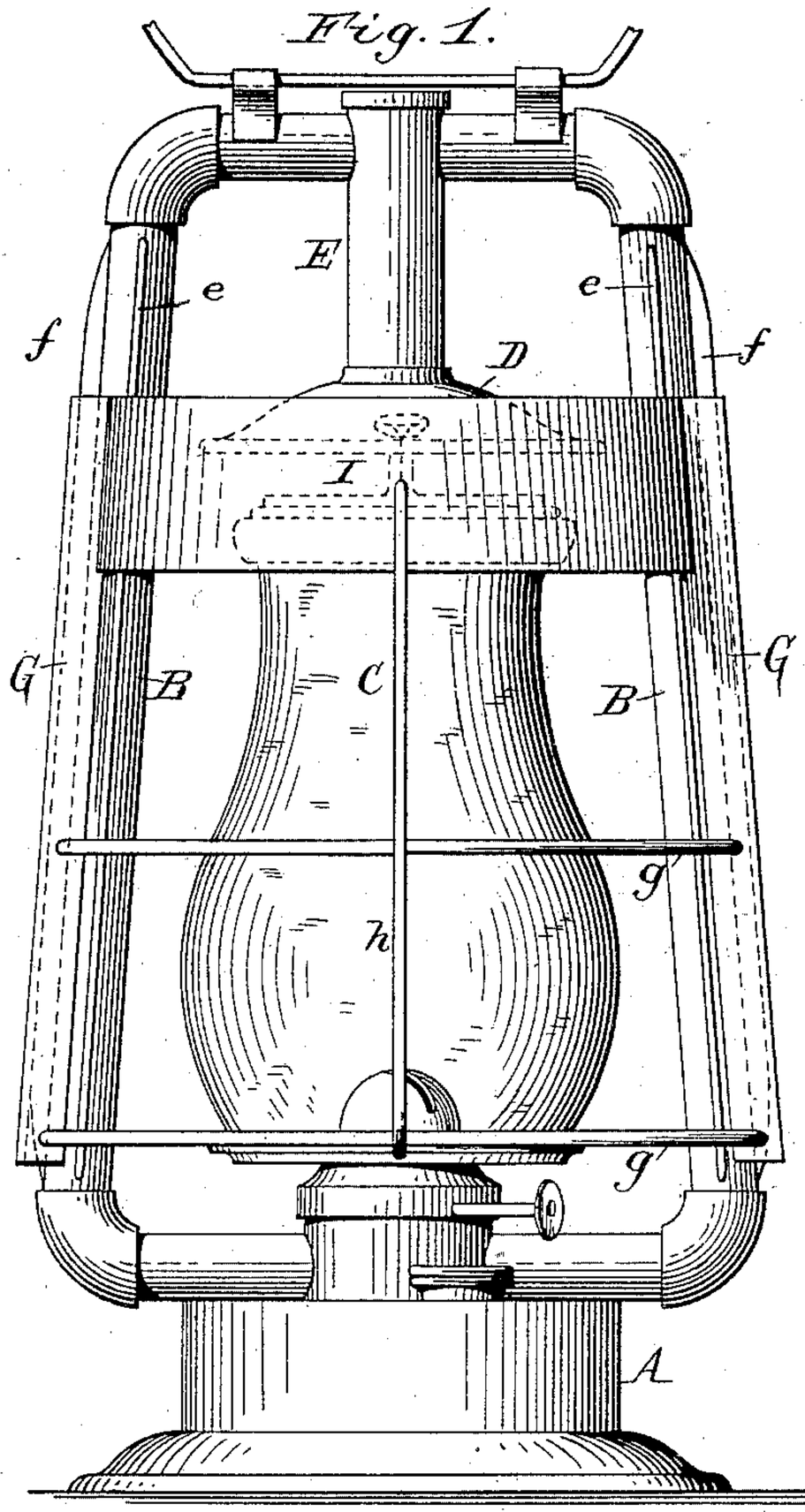


Fig. 2.

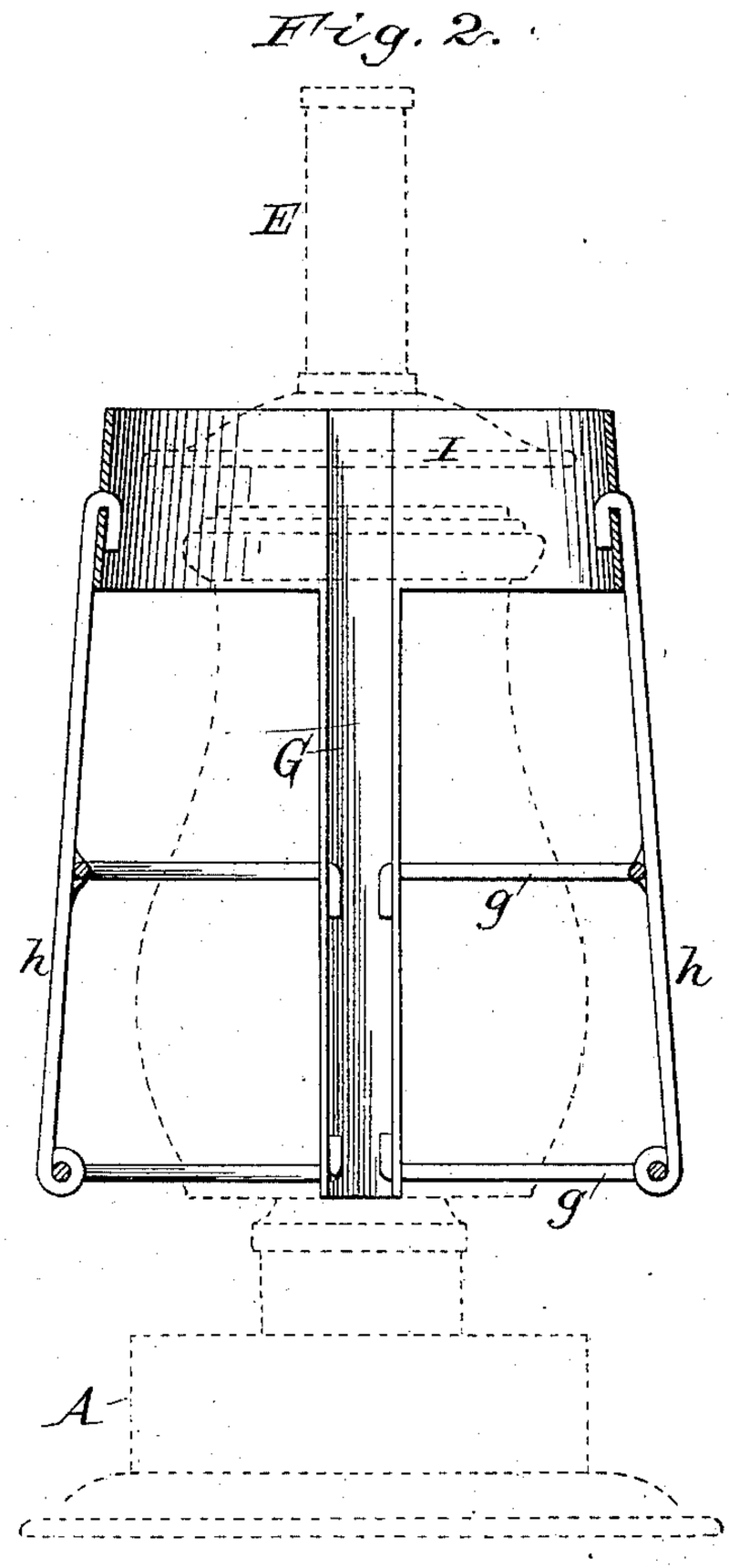
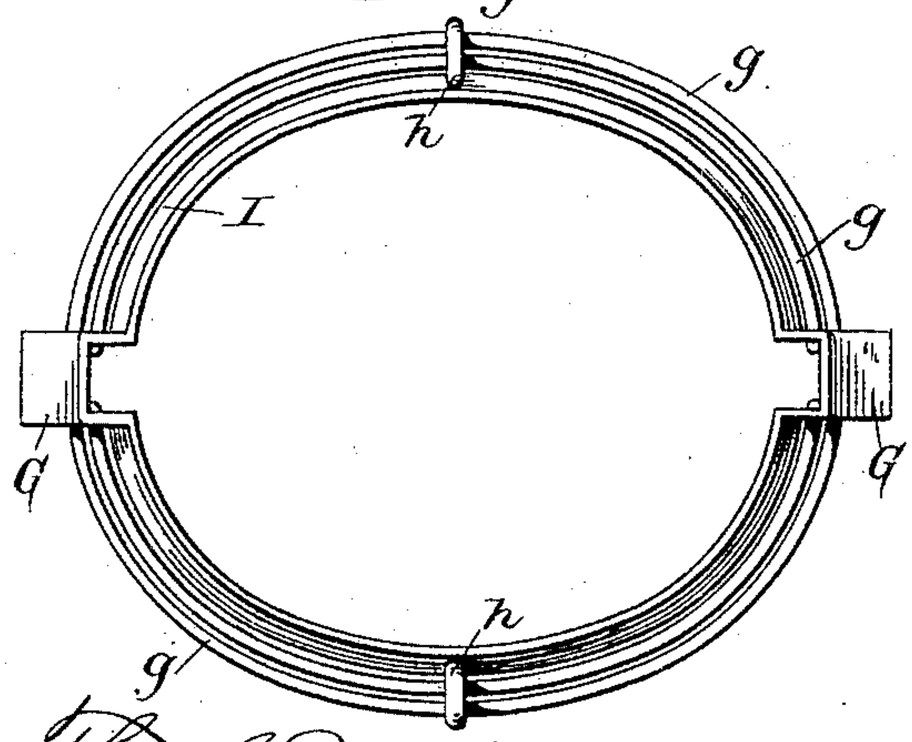


Fig. 3.



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UNITED STATES PATENT OFFICE.

FREDERICK DIETZ, OF NEW YORK, N. Y., ASSIGNOR TO THE R. E. DIETZ COMPANY, OF SAME PLACE, AND THE STEAM GAUGE AND LANTERN COMPANY, OF ROCHESTER, NEW YORK.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 395,489, dated January 1, 1889.

Application filed February 2, 1888. Serial No. 262,706. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK DIETZ, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Tubular Lanterns, of which the following is a specification.

This invention relates to that class of tubular lanterns which are provided with an inlet for the fresh air and an outlet for the products of combustion at or in the vicinity of the top of the globe, and has for its principal object to provide a guard which protects this opening at the top of the globe against the ingress of water and against heavy winds, thereby rendering the lantern suitable for use by firemen, where the lantern is liable to be struck by a stream of water, and on vessels, bridges, and other localities exposed to heavy winds.

Another object of my invention is to produce a rigid guard in a simple and substantial manner.

My invention consists, to these ends, of the improvements which will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a tubular lantern provided with my improved guard. Fig. 2 is a vertical section of the guard at right angles to Fig. 1, showing the lantern in dotted lines. Fig. 3 is a top plan view of the guard.

Like letters of reference refer to like parts in the several figures.

A represents the base of the tubular lantern, containing the oil-pot, burner, and air-chamber. B B represent the side tubes; C, the globe; D, the bell or flaring mouth of the air-tubes, and E the central tube connecting the bell with the top portions of the side tubes.

The bell is arranged at a short distance above the top of the globe, so as to leave an annular space between the bell and the globe, through which fresh air enters on the weather side and the products of combustion escape on the lee side of the lantern when the latter is exposed to the wind. The side tubes are preferably provided on their sides and backs with longitudinal stiffening-ribs *e f* when the lantern is designed for the use of firemen or for other uses in which the tubes are liable to receive blows.

The movable guard which is applied to the side tubes consists of two upright side pieces, G G, which rest against the backs or outer sides of the side tubes, horizontal wires *g g*, upright wires *h*, and a top shield, I. The latter is composed of bands of tin or other suitable metal attached to the upper portions of the uprights G G, and arranged to stand opposite the space between the globe and bell, so as to protect said space. When the lantern is used by firemen and struck by a stream of water, the shield I of the guard prevents the stream from entering the globe at the top thereof and extinguishing the flame. When the lantern is exposed to strong blasts of wind—as, for instance, on vessels, bridges, piers, or other exposed localities—the shield I prevents an excessive injection of fresh air to the tubes and avoids the cutting down of the flame and reduction of illuminating-power resulting from an excessive supply of air to the flame.

The uprights G G of the guard are preferably composed of strips of tin bent to a U or channel shape and arranged with their open sides toward the tubes, whereby very strong and rigid uprights are secured. Each of the horizontal guard-wires *g g* is composed of two parts, the ends of which are inserted through holes in the sides of the uprights and clinched on the inner sides of the latter, as represented in Fig. 2. The bent ends of these wires are further secured to the uprights by soldering. The horizontal guard-wires *g g* are preferably connected between the uprights G G by upright wires *h*. The guard is very strong, simple in construction, and can be readily applied to or removed from the lantern, as circumstances may require.

I claim as my invention—

1. The combination, with a tubular lantern, of a removable guard resting on the tubes and surrounding the body of the globe, and provided at its upper end with an annu-

lar shield which surrounds and protects the air-passages in the lantern-top, substantially as set forth.

2. The combination, with the channel-shaped uprights G G, adapted to rest on the tubes, of the horizontal guard-wires *g g*, secured to the lower portions of the uprights and connecting the same, and the annular shield I, secured to the upper portions of the uprights, substantially as set forth.

Witness my hand this 30th day of January, 1888.

FREDERICK DIETZ.

Witnesses:
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