

(No Model.)

F. DIETZ.
TUBULAR LANTERN.

No. 387,970.

Patented Aug. 14, 1888.

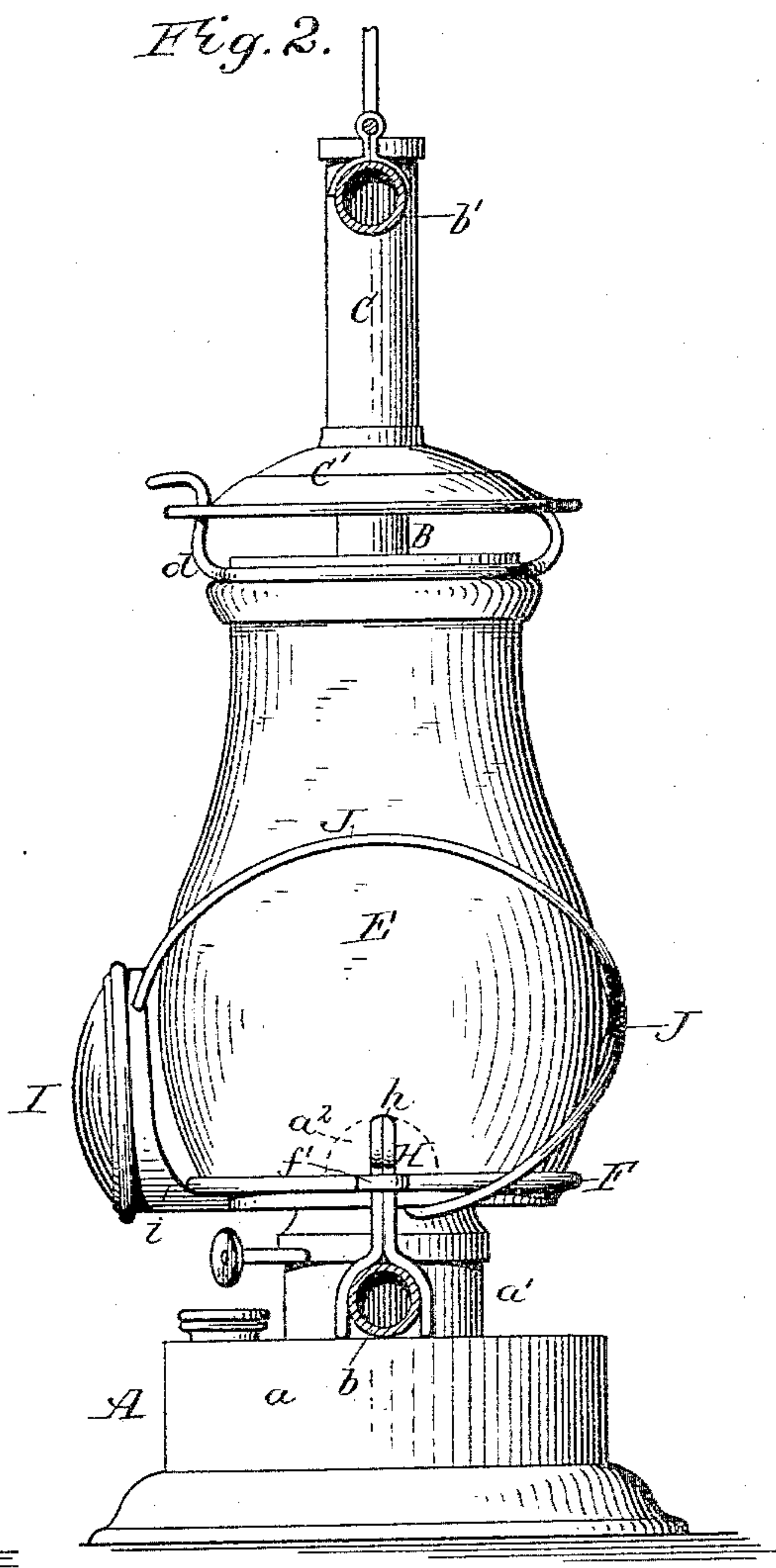
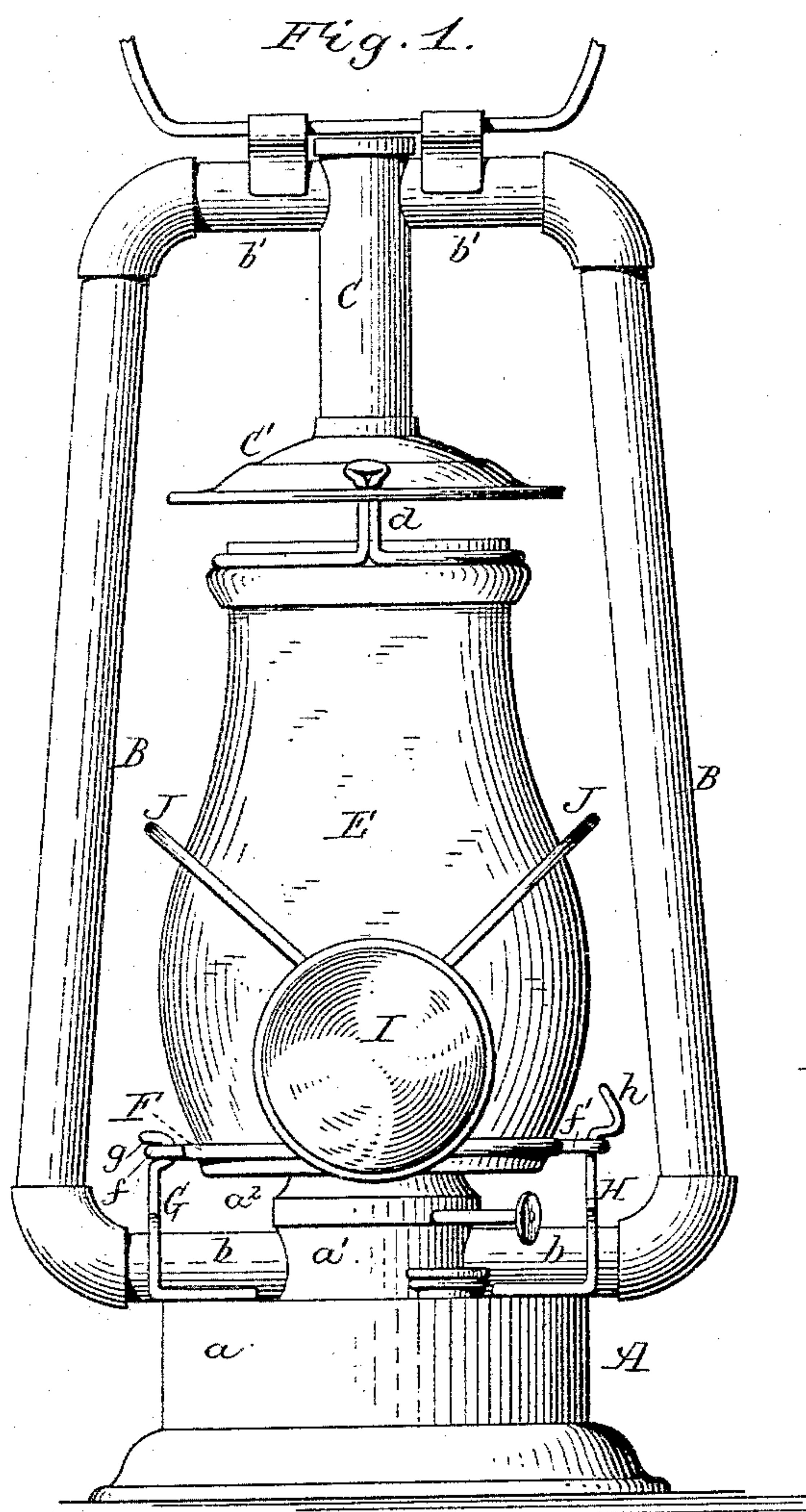


Fig. 3.

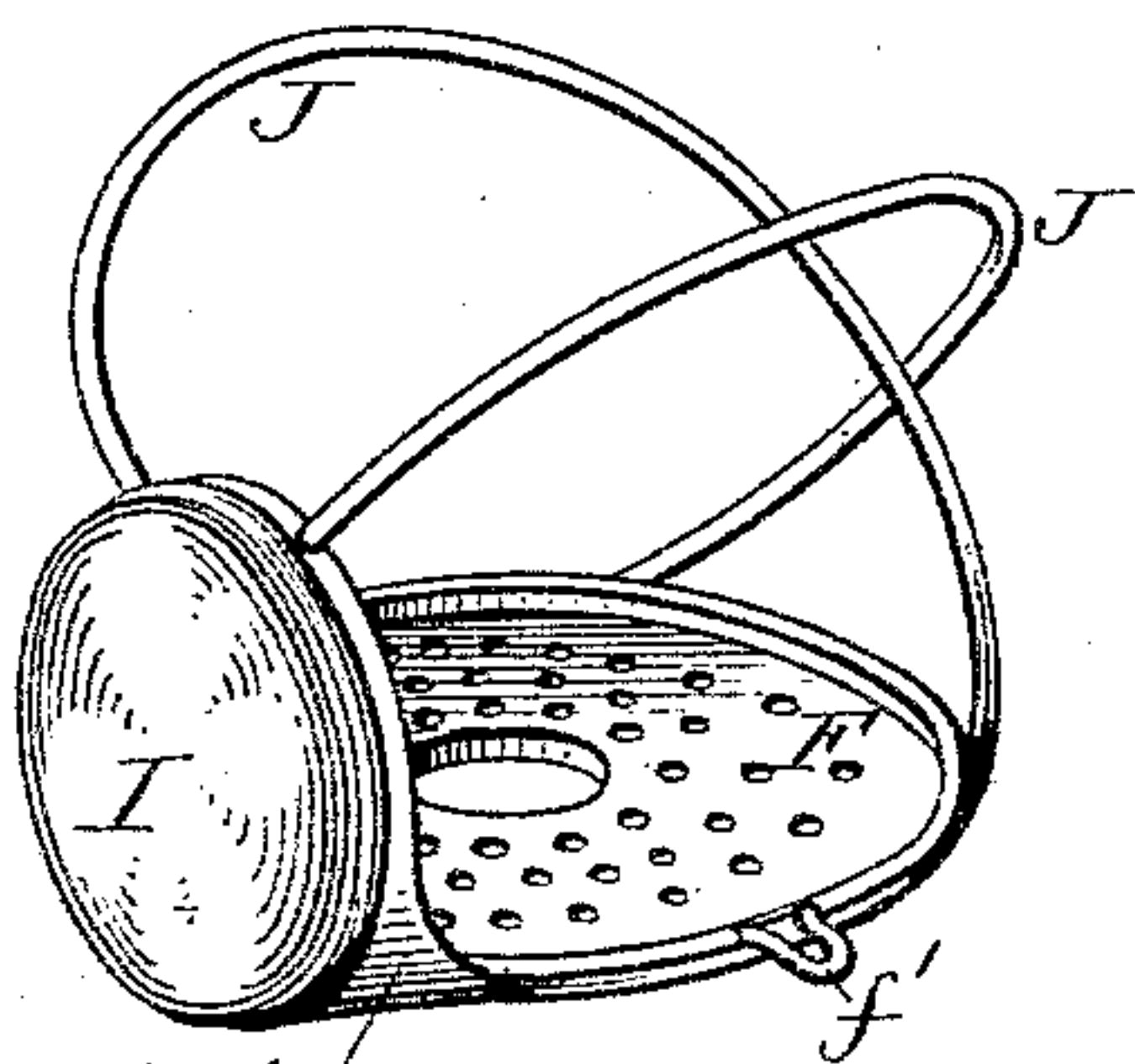
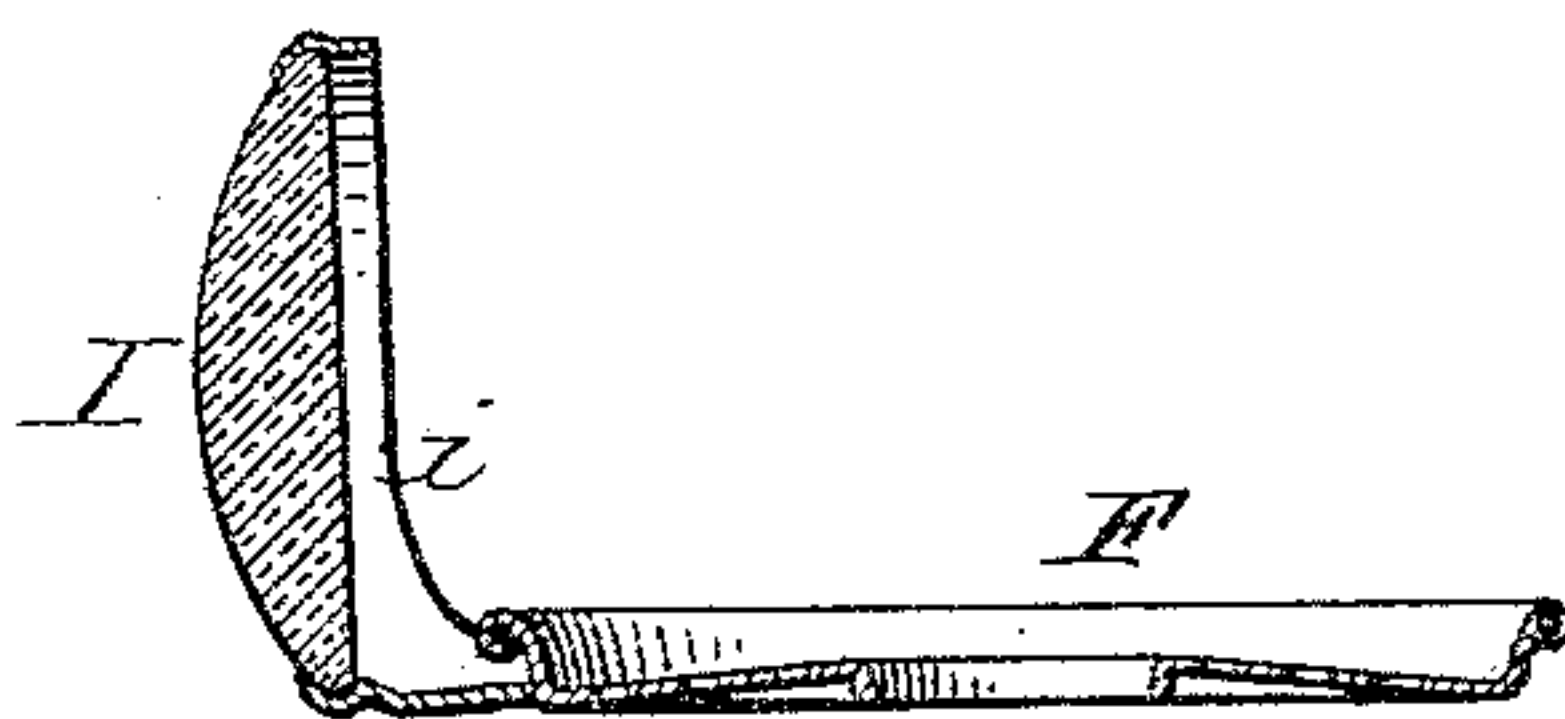


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDERICK DIETZ, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, 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. 387,970, dated August 14, 1888.

Application filed December 7, 1887. Serial No. 257,181. (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 new and useful
5 Improvements in Tubular Lanterns, of which the following is a specification.

This invention relates to tubular lamps and lanterns, and has for its object to provide the base of the lamp or lantern with simple means
10 whereby the globe-supporting plate is held down upon the burner in the absence of the globe, so that the loose burner is not liable to be dislodged from its seat when the globe is broken in handling or swinging the lamp or
15 lantern.

A further object of my invention is to provide the globe-supporting plate with a lens or bull's-eye, whereby the rays of light are concentrated forwardly, thereby increasing
20 the illuminating effect of the lamp or lantern when used on the dash-boards of vehicles, and as a side or bracket lamp in places in which it is desirable to throw the light principally in one direction.

25 My invention consists of the improvements which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a tubular lantern provided
30 with my improvements. Fig. 2 is a side elevation thereof, with one of the side tubes removed. Fig. 3 is a perspective view of the globe-supporting plate detached from the lantern. Fig. 4 is a vertical section of the globe-
35 supporting plate not provided with a wire guard.

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

40 A represents the base of the lantern, containing the oil-pot *a*, the air-chamber *a'*, the burner *a''*, and the lower horizontal branches, *b*, of the air tubes.

B represents the side portions of the air-tubes, and *b'* the upper horizontal portions of
45 the air-tubes connecting with the central supply-tube, C, which is provided at its mouth with the bell C', arranged over the globe and carrying a spring-clasp, *d*, which embraces the upper end of the globe E. All of these parts

may be of any suitable or well-known construction. 50

F represent the globe-supporting plate, upon which the base of the globe rests, and which rests in turn upon the burner *a''*.

G H represents two standards secured with
55 their lower ends to the base A of the lantern, and connected with their upper ends to the globe-supporting plate F, so as to hold the latter firmly down upon the burner. The standard G is provided at its upper end with
60 a hook, *g*, which engages in the ear *f'* of the globe-supporting plate F. The standard H is provided at its upper end with an inclined thumb-piece, *h*, which forms a shoulder projecting outwardly from the standard, and
65 which engages with the ear *f'* of the plate F. The standard H is made of spring-wire, or other elastic material, and if desired the standard G may also be constructed of elastic material. After securing the globe, the plate F
70 may be detached from its supporting-standards by pressing the thumb-piece *h* inwardly until the ear *f'* can be raised from the standard H. Each standard is preferably bent of
75 a single length of wire doubled upon itself to form the upper portion of the standard, and having its lower portions or branches distended and straddling the lower horizontal branches, *b*, of the air-tubes. These lower
80 branches of the standards are secured to the base of the lantern by soldering or otherwise.

I represents a lens or bull's-eye secured to the globe-supporting plate F, and projecting
85 upwardly therefrom, so as to be in line with the flame and throw the rays of light in the direction in which it is desirable to concentrate a considerable volume of light. The lens I is mounted in a frame, *i*, which incloses the lens and is secured with its base to the plate F by soldering or otherwise. 90

J J represent curved guard wires or bows, which are secured with their front ends to the upper portion of the frame *i* of the lens, and with their rear ends to the supporting-plate F, the two wires crossing each other on the
95 rear side of the lantern. These wires stand so far from the globe as to properly protect the same against contact with objects which might

cause injury to the same. As the guard-wires do not extend downwardly on the front side of the lantern to a point in line with the flame, they do not interfere with the emission of the light in a forward direction. The lens-frame is so far depressed that the globe can be readily removed through the space above the lens-frame and between the front portions of the guard-wires by tipping it forward.

10 The fastenings whereby the globe supporting plate is held in place prevent the lens from changing its position laterally with reference to the flame by the jarring or other motions to which the lamp or lantern may be subjected. If the globe should be broken, these fastenings prevent the burner from leaving its seat, which would be liable to occur in the absence of such fastenings, as the burners used in these lanterns are loosely seated in their sockets. The globe-supporting plate provided with the lens, with or without the guard-wires, can be readily applied to lanterns already in use.

I claim as my invention—

25 1. The combination, with a tubular lantern,

of a detachable globe-supporting plate having its margin provided with an upwardly-projecting frame and a lens secured in said frame, substantially as set forth.

2. The combination, with a tubular lantern, 30 of a detachable globe-supporting plate having its margin provided with an upwardly-projecting frame and a lens secured in said frame, and fastenings secured to the base of the lantern and engaging with the detachable plate, 35 whereby the latter and its lens are held against displacement in the frame, substantially as set forth.

3. The combination, with the globe-supporting plate, of a lens-frame secured to said plate, 40 a lens seated in said frame, and guard-wires secured to the lens-frame and to the globe-supporting plate, substantially as set forth.

Witness my hand this 25th day of November, 1887.

FREDERICK DIETZ.

Witnesses:

JOHN E. DIETZ,
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