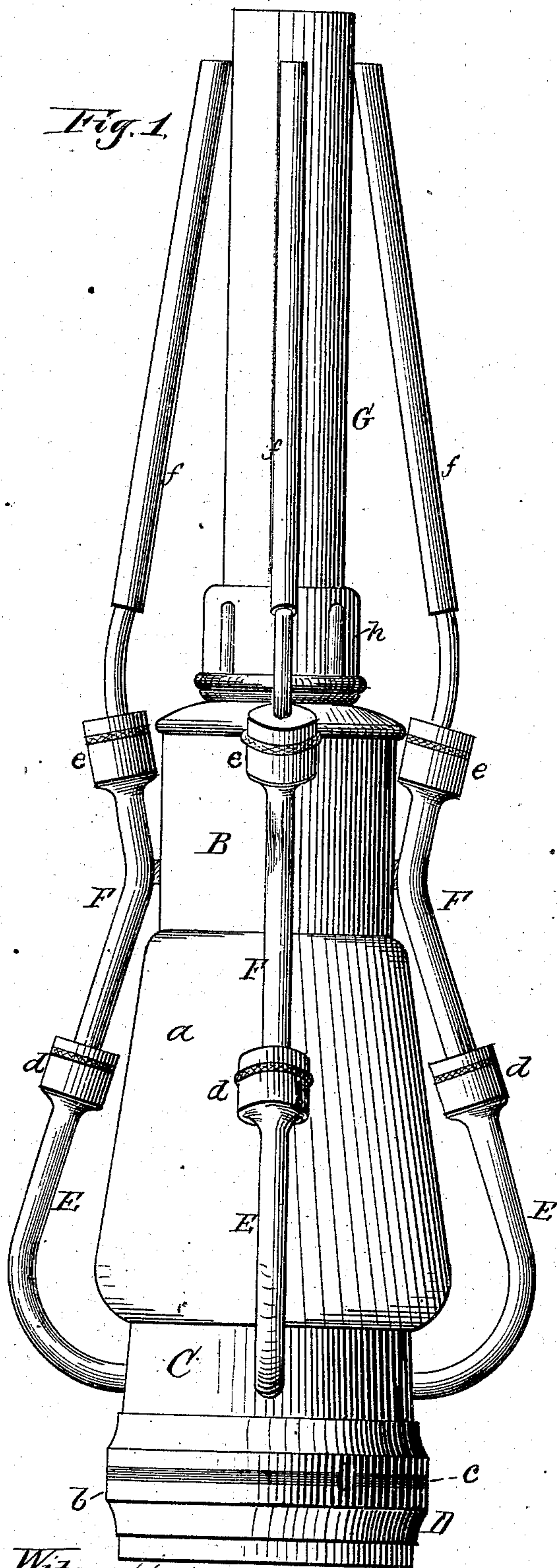


(No Model.)

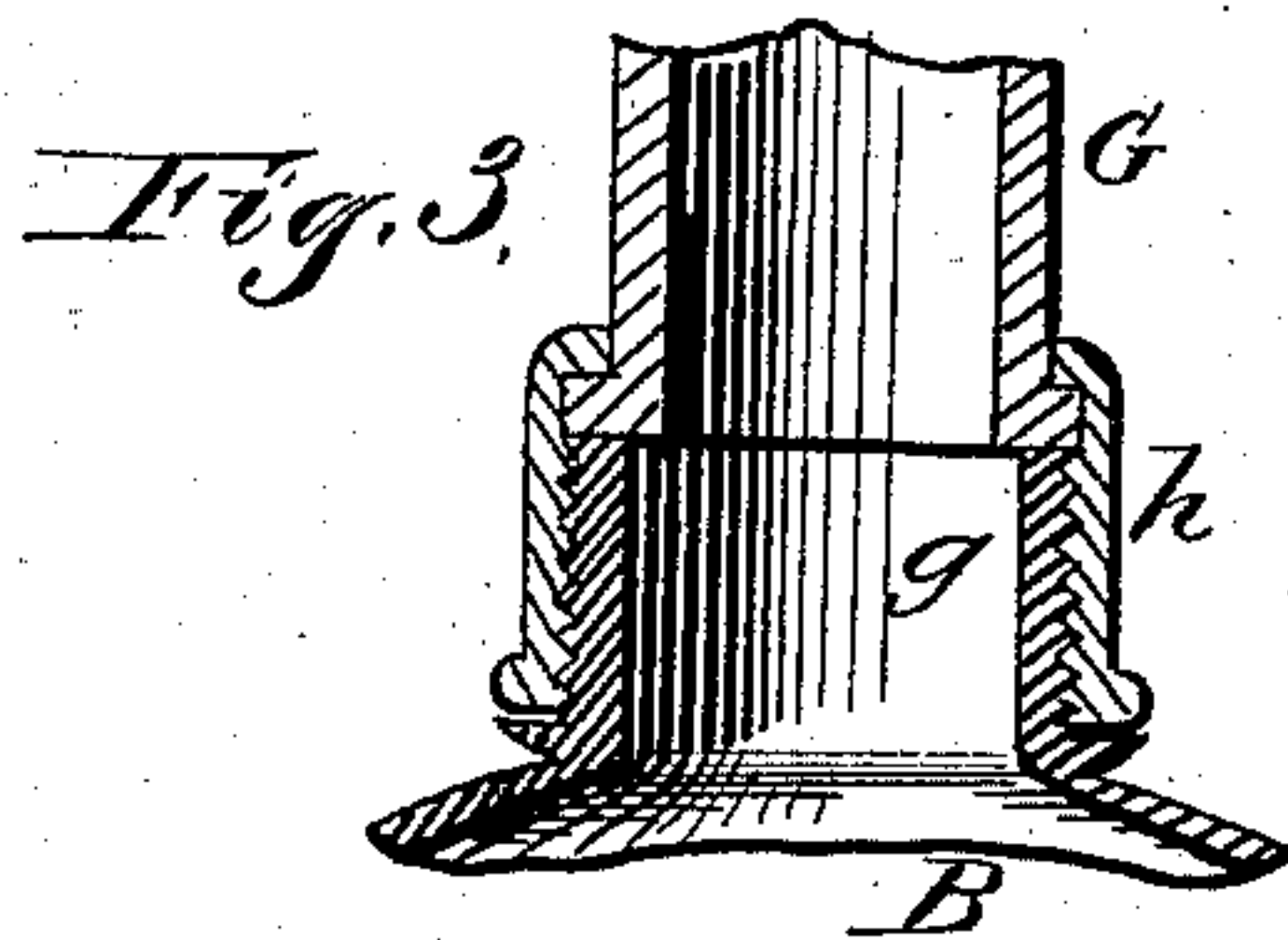
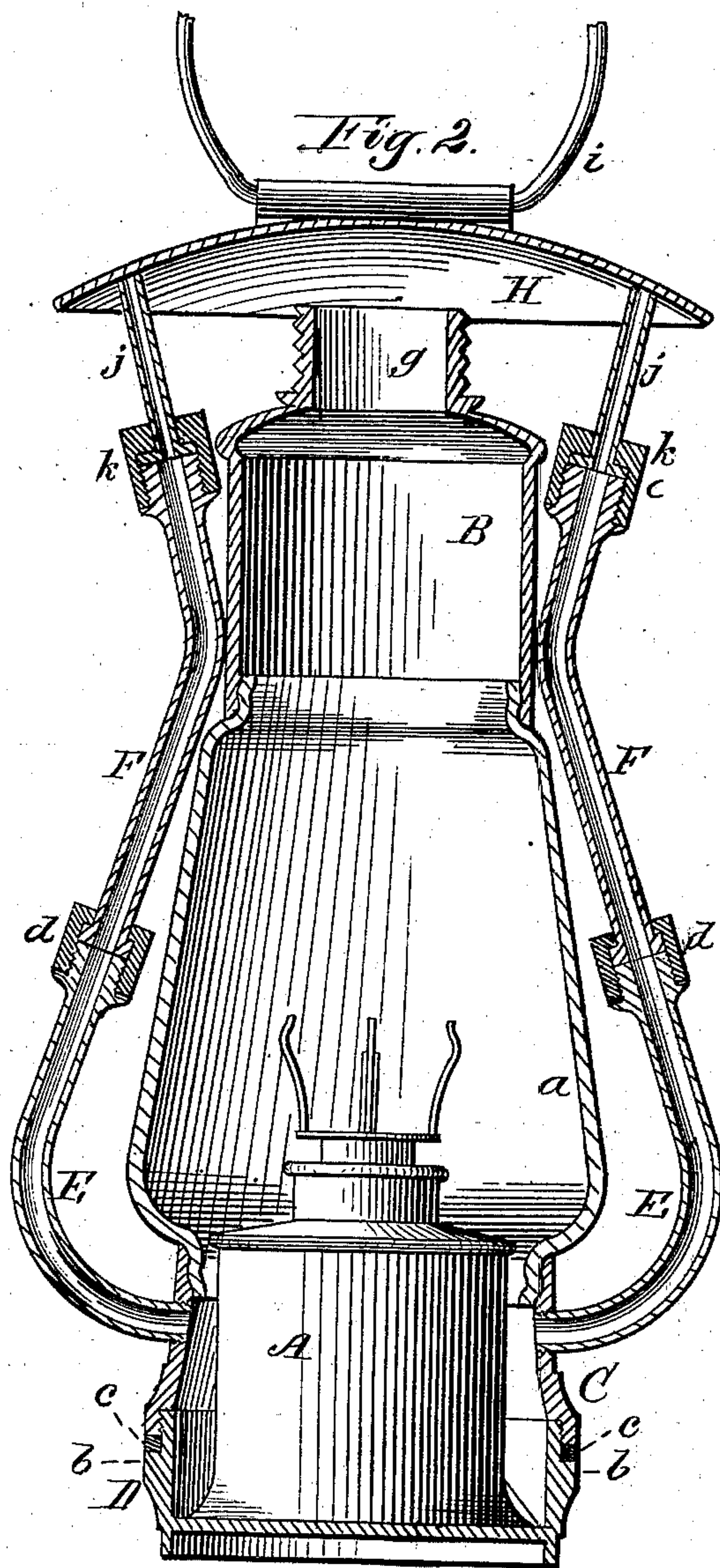
L. FOWLER.
Submarine Lantern.

No. 240,823.

Patented May 3, 1881.



Witnesses:
H. C. M^r. Arthur,
Malay Bowarad.



Inventor:
Luther Fowler.
Per. Cha. H. Fowler.
Attorney.

UNITED STATES PATENT OFFICE.

LUTHER FOWLER, OF WEST HAVEN, CONNECTICUT.

SUBMARINE LANTERN.

SPECIFICATION forming part of Letters Patent No. 240,823, dated May 3, 1881.

Application filed February 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, LUTHER FOWLER, a citizen of the United States, residing at West Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Submarine Lanterns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of my invention with the attachments for use as a submarine lantern or lamp. Fig. 2 is a sectional elevation with the attachments for use as a hand-lantern; and Fig. 3 is a detail view, showing the coupling-connection between the upper end of the lantern and chimney.

The present invention has relation to certain new and useful improvements in submarine lanterns that may be adapted for use either as a submarine lantern or lamp or hand-lantern, as circumstances may require.

The object of the invention is to provide a lantern or lamp of the above-mentioned character that will not alone be effective for submarine purposes, but readily convertible at pleasure into an ordinary hand lamp or lantern, or, if desirable, into a street-lamp. These objects I attain by the construction and various attachments shown in the accompanying drawings and hereinafter described.

In the drawings, A represents the ordinary receptacle for oil, provided with the usual burner, wick, and means for raising or lowering it. The flame is protected by a heavy glass globe, *a*, the same being supported in a frame composed of the top and bottom sections, B C, of suitable metal. The lamp or oil-receptacle A is preferably of metal, and is formed with a circumferential rim, D, which, together with the section C, forms the base of the lamp or lantern. The rim D is formed with an annular shoulder, *b*, upon which is placed a rubber or other suitable packing-ring, *c*, the section C, and rim D, having screw-threads for connecting them together, the packing forming an air-tight joint between the two.

The air-conducting tubes, together with the top and bottom B C, form the frame of the lamp or lantern. These tubes are formed in

sections E F, the sections E being rigidly connected to the bottom C, for conveying air to the interior of the lamp or lantern, and being the sole means of supplying air to promote combustion.

The upper sections, F, of the air-conducting tubes are rigidly connected to the top B, and are joined to the upper ends of the sections E by suitable screw-couplings, *d*. These sections of tubing F, if desired, may be constructed so as to continue beyond the top of the lamp or lantern; but it is preferred that they be made with joints or tight couplings *e*, for the attachment of supplementary removable tubes or air-conductors *f*, connected to a chimney, G, of any suitable length.

The top B is formed with a short chimney, *g*, having screw-threads upon its exterior, for attaching the supplemental chimney G by coupling-sleeve *h*. The chimney G and tubes *f*, at their upper ends, are above the water-level when the lamp or lantern is used for submarine purposes, the chimney furnishing an exit for the smoke and heat and the tubes *f* supplying the required quantity of air to the interior of the lamp or lantern.

If considered necessary, an inner glass globe may be used to prevent the globe *a* from becoming too hot.

The air-conducting tubes being formed in sections E F and suitably coupled together admits of the top and bottom B C being separated, when it is required, so as to admit of a broken globe being replaced by a new one.

It should be noticed that the sections E F form in themselves a frame-work around the globe *a*, to preserve it from injury, and as the sections are rigidly secured to the top and bottom B C, they hold the two together after the couplings *d* have been secured in place, thereby dispensing with the usual rods and screw-nuts usually employed to form a frame-work around the globe and hold the top and bottom together.

When my invention is used as a hand or street lamp or lantern the supplemental or extension chimney G and the supplemental air-conductors *f* are detached and removed by unscrewing the couplings *h e*.

Any suitable support, handle, or protector may be used when the lamp or lantern is em-

ployed for any other purpose than that of illuminating under water; but in order to carry out my invention and show its application to a hand lamp or lantern, I employ and illustrate
5 the protector, as shown at H, having a suitable handle, *i*, said protector having upon its under side short rods *j* and couplings *k*, for connecting them to the sections F, as shown in Fig. 2.

10 The special construction of my invention and the attachments employed render it not only applicable to illuminate under water and effective for all submarine purposes where a lamp or lantern is required, but it may be con-
15 verted into a superior hand, street, or carriage lamp, as any sudden lifting or shifting of its position does not cause the flame to flicker or go out.

Having now fully described my invention,
20 what I claim as new, and desire to secure by Letters Patent, is—

1. In a submarine lantern, the lamp A, formed with the screw-threaded rim D and the thread-

ed section C, having tube-sections E, in combination with the top B, having rigidly con- 25
nected thereto tube-sections F and couplings *d*, substantially as and for the purpose set forth.

2. The section C, having tube-sections E, and the top B, having connected thereto tube-sections F, in combination with the supplemental 30
chimney G, having connected to it the tubes *f*, substantially as and for the purpose specified.

3. In a lamp or lantern, the top and bottom B C, globe *a*, and tubes E F, in combination 35
with the protector H, having handle *i*, and means for connecting it to the tubes F, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence 40
of two witnesses.

LUTHER FOWLER.

Witnesses:

LUCIUS B. TUTTLE,
CHARLES K. BUSH.