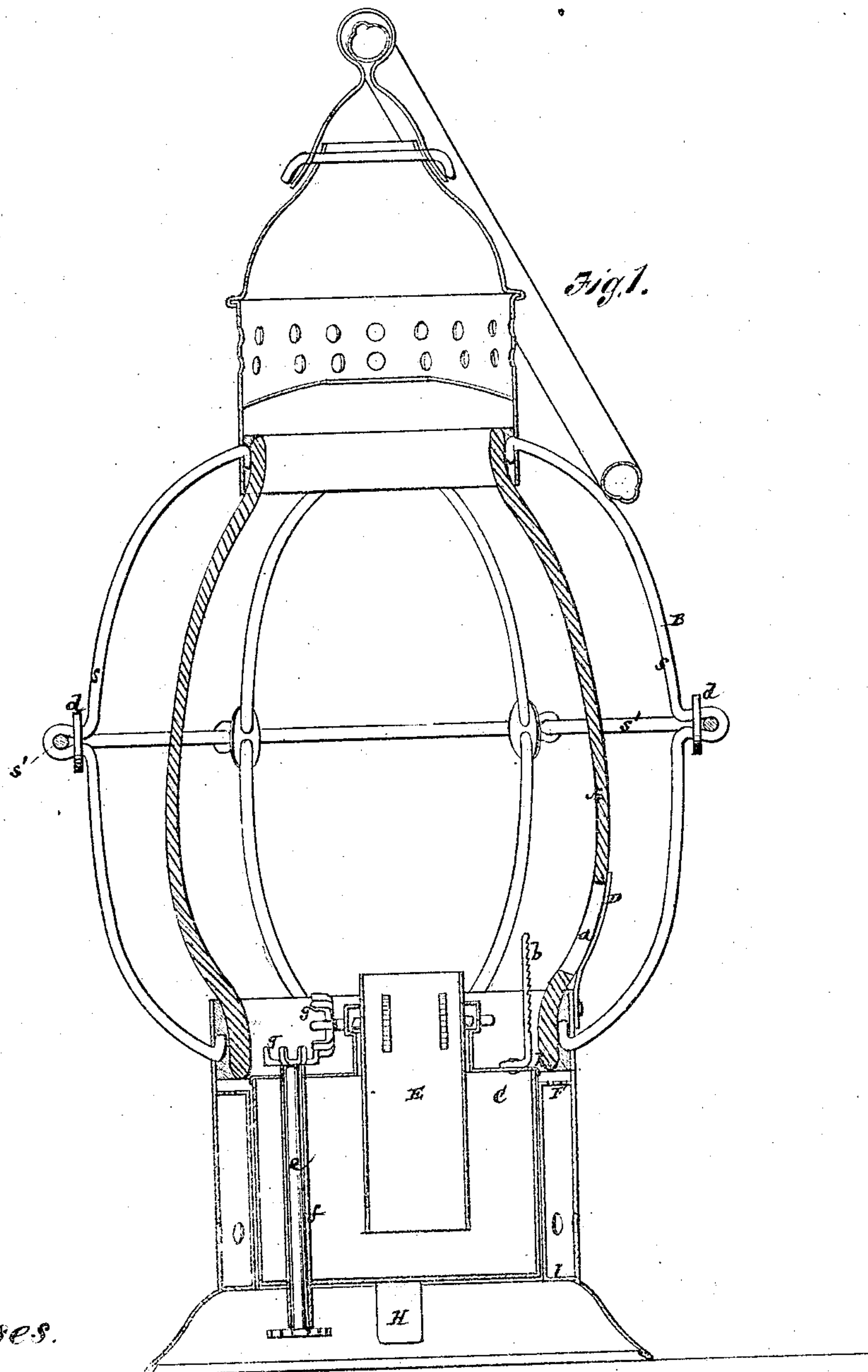


Sheet 1.

Lemuel W. Leary's Imp^t in Lanterns.

103628

PATENTED MAY 31 1870



Witnesses.

Fred. Haynes

R. H. Kabeau

Emuel W. Leary

Lemuel W. Leary's Imp^t in Lanterns.

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Fig. 2.

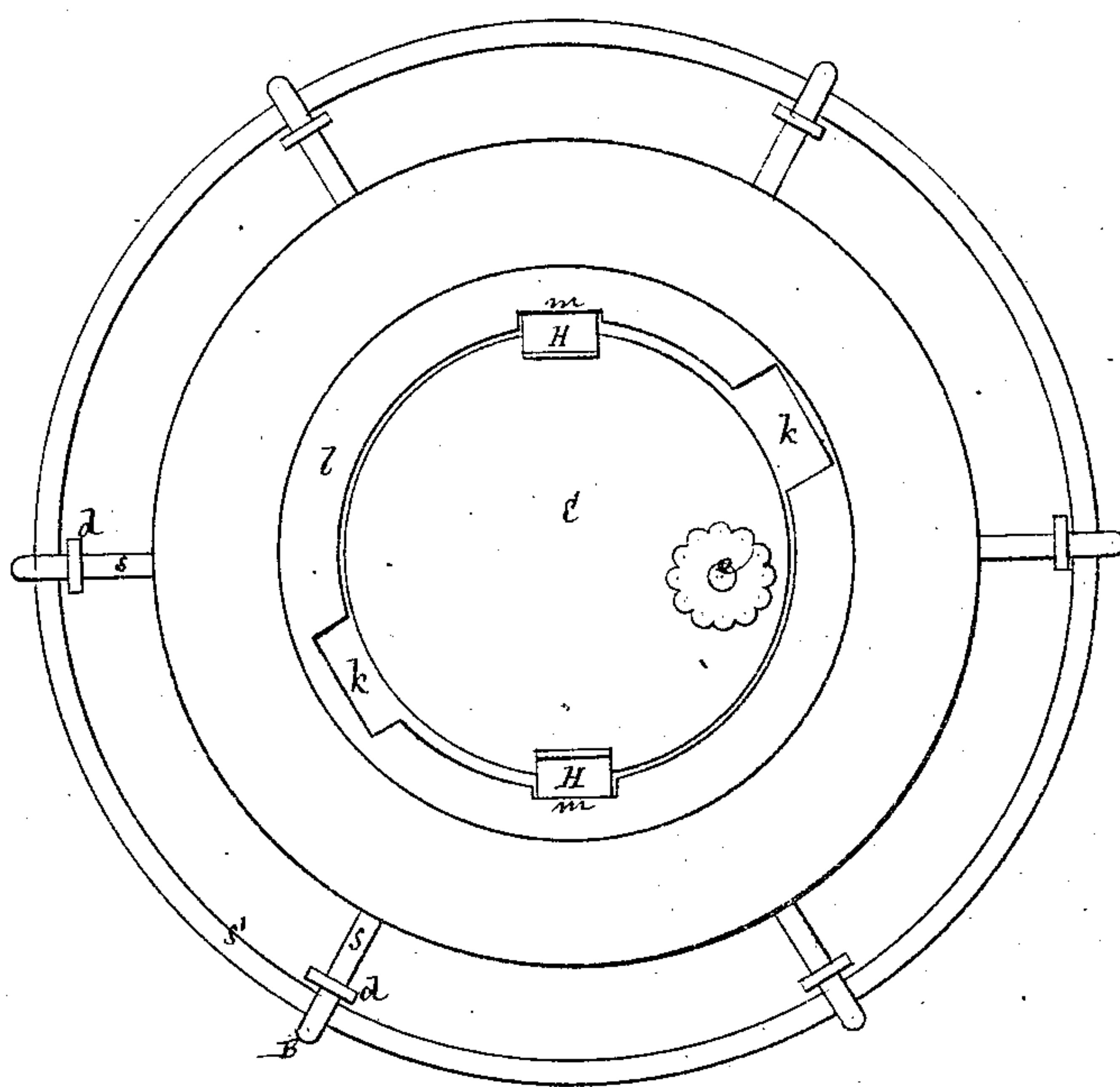
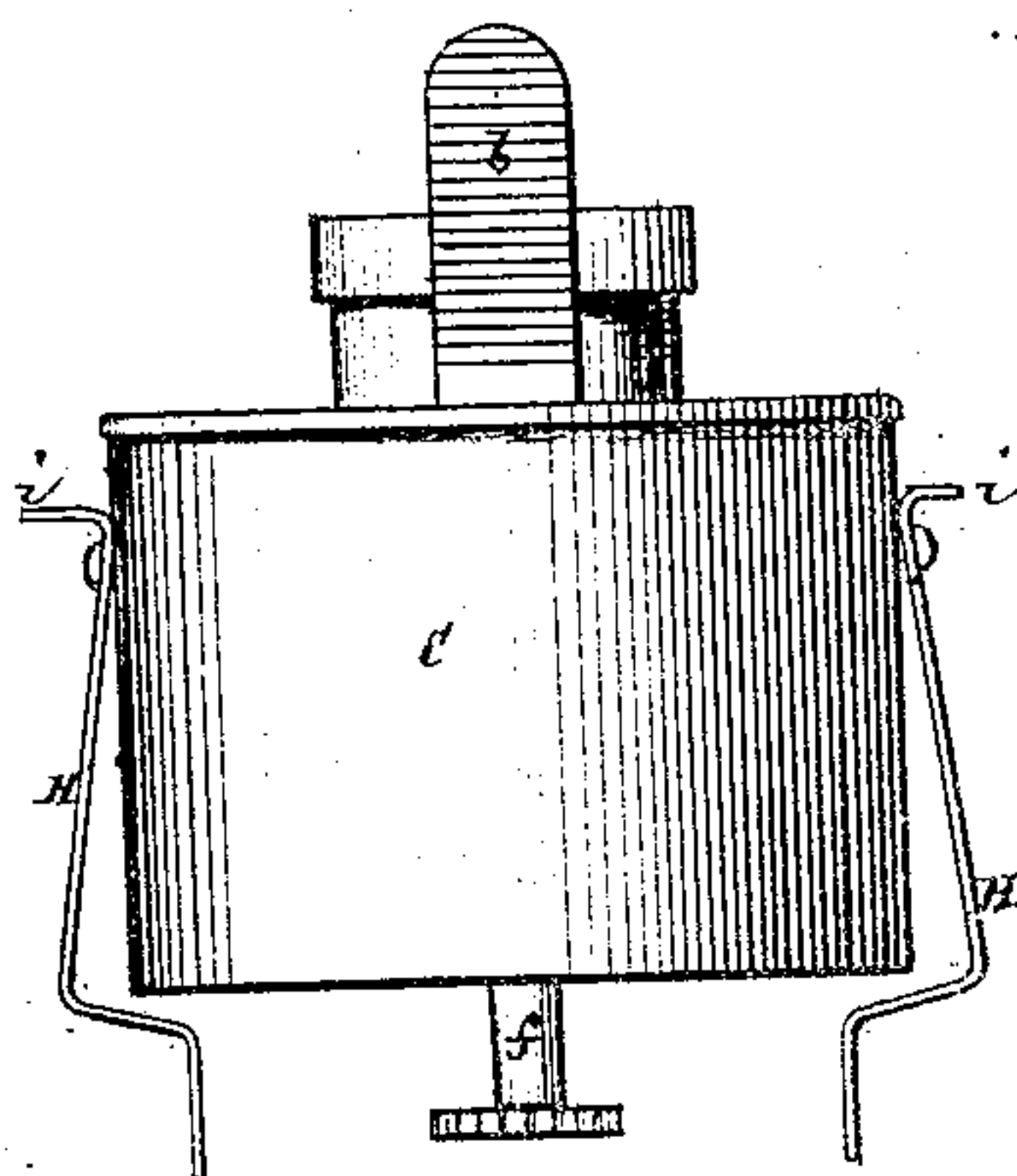


Fig. 3.



Witnesses
 Fred Haynes
 R. R. Rabeau

Lemuel W. Leary

United States Patent Office.

LEMUEL W. LEARY, OF NORFOLK, VIRGINIA.

Letter's Patent No. 103,628, dated May 31, 1870; antedated May 24, 1870.

IMPROVEMENT IN LANTERNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEMUEL W. LEARY, of Norfolk, in the county of Norfolk and State of Virginia, have invented a new and useful Improvement in Lanters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a sectional elevation of a lantern constructed in accordance with my invention;

Figure 2, an inverted plan of the same; and

Figure 3, a side view of the lamp removed.

Similar letters of reference indicate corresponding parts.

The lantern to which the present invention is shown applied is similar in certain of its features to the portable and stationary lantern described in Letters Patent (No. 85,014) secured to me under date of December 15, 1868; and

It consists in a novel construction of the guard or shield thereon, as hereinafter described, whereby the efficiency, durability, and convenience of the lantern are increased without materially affecting its cost.

Referring to the accompanying drawing—

A represents the globe of the lantern, and

B, the wire guard or shield which surrounds it.

The globe A is of the ordinary or any suitable construction, excepting that it has formed in it a narrow slot, *a*, which is arranged opposite an interior friction or igniting-plate, *b*, and through which a match may be inserted, ignited against said plate, and applied while burning to the wick of the lamp C without removing or disturbing said lamp from its place in the lantern.

A movable cover or door, D, is arranged opposite the slot *a* to protect the flame from the wind.

The guard or shield B, instead of having its wires soldered together where they cross, as is usually the case, has its upper wires *s* bent around the horizontal wire or wires *s'*, and a loop, *d*, passed over the bent portions of the vertical wire, which loop is afterward slipped or driven outwardly toward the horizontal wire, and the upper and lower portions of the vertical wire subsequently suitably bent so as to form a firm connection of the parts, which, if necessary, may be afterward soldered.

Instead of the crown-wheel and pinion used in my former lantern hereinbefore referred to, for operating the wick-lifter by a shaft, *e*, arranged to work through a tube, *f*, fitted to pass entirely through the oil-pot, so as to prevent leakage and protect the operating shaft from the oil, I use two crown-wheels *g g*, of such form and construction as to admit of their being

struck or stamped from a piece of sheet metal, and such wheels being of the same size and form, so that they may be both formed by the same die, thereby cheapening their construction, and, furthermore, the form or construction of said wheels being such that increased facility is obtained for screwing on or off the burner, the said crown-wheels engaging and disengaging readily as the one passes the other during the forward or backward turning of the burner.

The wick-tube E, instead of terminating below at a point above the surface of the oil, is continued downwardly to a point below said surface, and may be made to terminate near the bottom of the lamp, whereby the air is kept from the wick and made to press down upon the oil or fluid to assist the capillary attraction by which the wick is supplied, thereby adding to the brilliancy of the flame and efficiency of the lantern.

An annular air-space, *h*, is left between the globe and lamp of the lantern for the purpose of obtaining draught.

An annular perforated plate, F, is arranged below this opening *h*, to distribute and check the too free supply of air from the hollow or annular base G of the lantern.

The lamp C is directed to its place and held in position by means of bent springs H and lugs *i*, arranged so that, when inserting the lamp from below, the lugs are first entered through apertures *k k* in a supporting rim, *l*, below, and the lamp then turned to allow of the upward movement of the lamp, and the springs released, to admit of their bent portions resting upon the rim *l*, as in the lantern previously patented to me; but, in the present construction, the springs H and their respective lugs *i* are made in one piece, which lessens the cost and facilitates manufacture, and said lugs made of unequal length to pass through the apertures *k k*, made of correspondingly unequal dimensions, to insure the proper entry of the lamp, and so that on only slightly turning it, to allow of its springs H entering recesses *m m*, the lamp when raised is adjusted to its proper position as regards the relation of the wick or igniting-plate *b* with or to the slot *a* in the globe.

What is here claimed, and desired to be secured by Letters Patent, is—

The guard or shield B, made with its vertical wires bent as described, to receive the horizontal wire or wires through them, in combination with the locking-loops *d*, substantially as specified.

LEMUEL W. LEARY.

Witnesses:

FRED. HAYNES,
R. E. RABEAU.