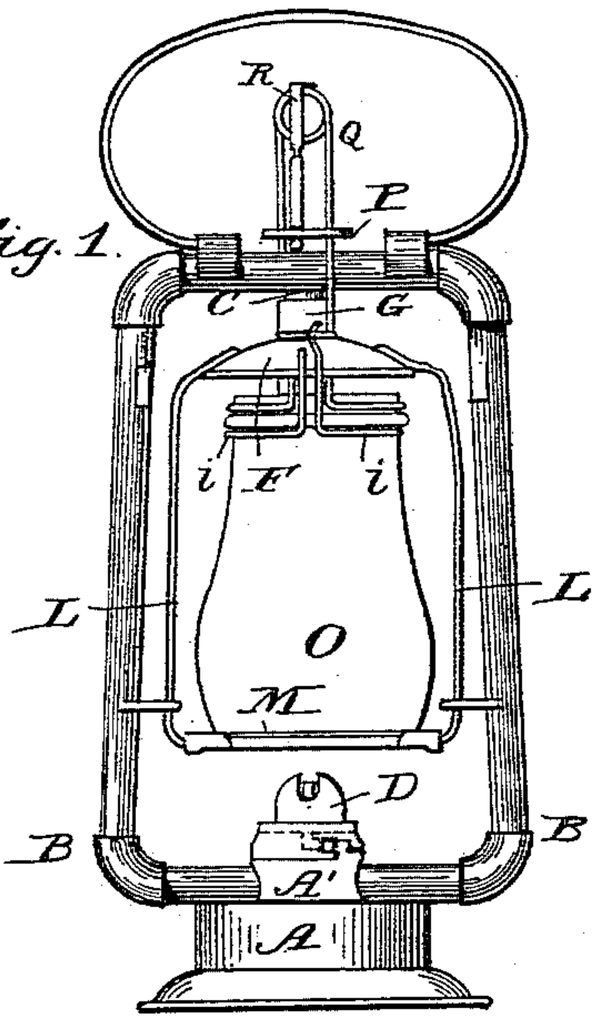
(No Model.)

H. L. JEWELL.

LANTERN.

No. 458,341. Patented Aug. 25, 1891.

Fig. 1.



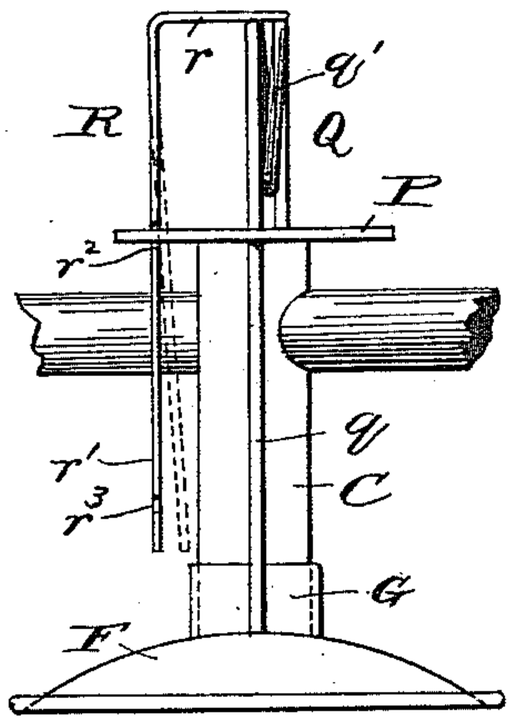


Fig. 5.

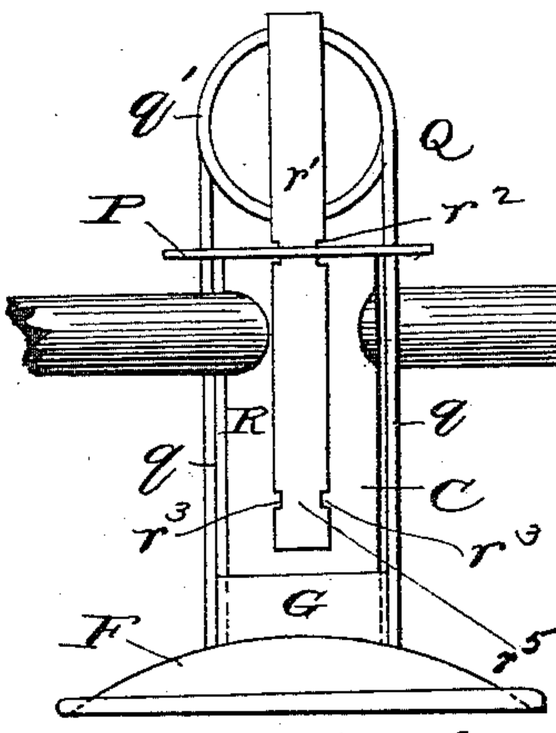


Fig. 6.

Fig. 7.

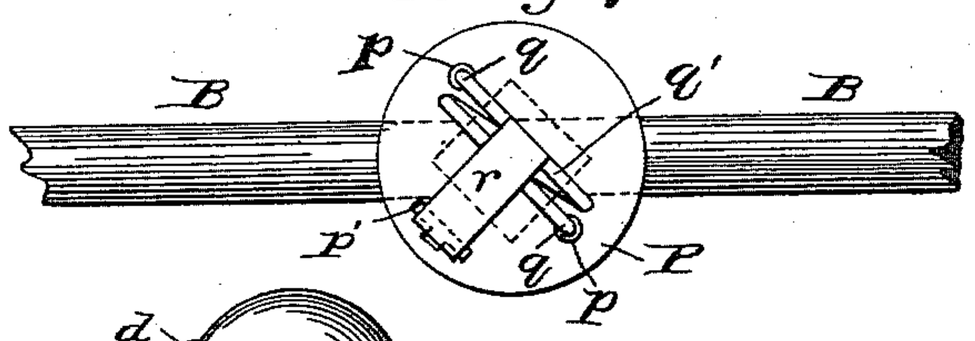
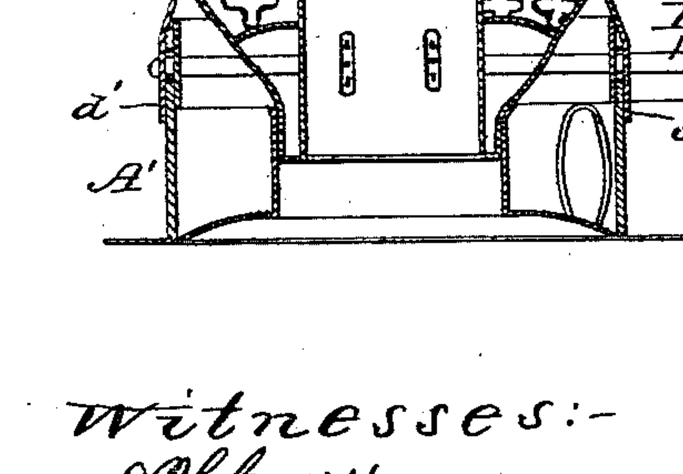


Fig. 2.



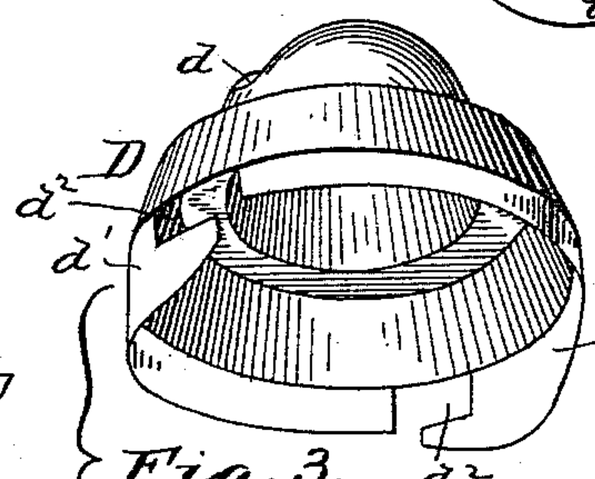
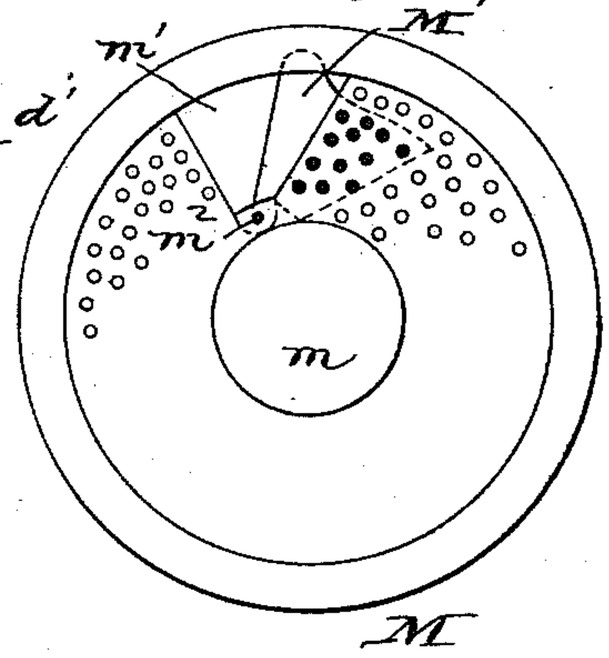


Fig. 3.

Fig. 8.



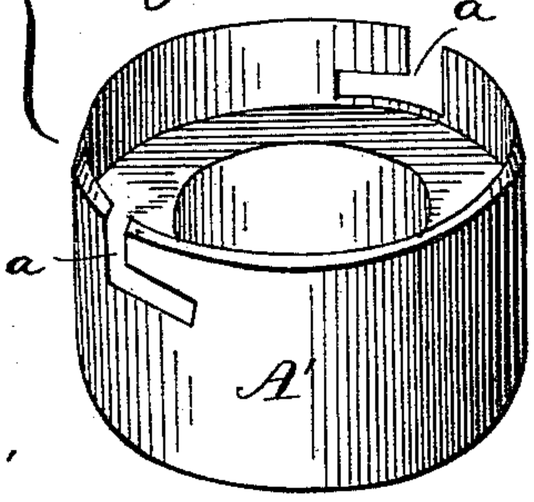
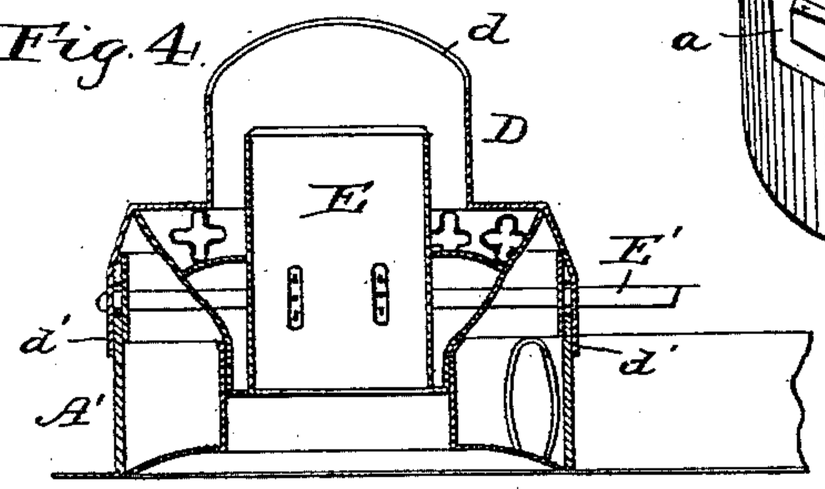


Fig. 4.



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UNITED STATES PATENT OFFICE.

HARVEY LYSANDER JEWELL, OF BANGOR, MAINE.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 458,341, dated August 25, 1891.

Application filed June 12, 1890. Serial No. 355,138. (No model.) Patented in Canada February 19, 1889, No. 30,821.

To all whom it may concern:

Be it known that I, HARVEY LYSANDER JEWELL, a citizen of the United States, residing at Bangor, in the county of Penobscot and State of Maine, have invented certain new and useful Improvements in Lanterns, (a part of said improvements having been patented in Canada February 19, 1889, No. 30,821;) and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to means for locking the wick-holder in place in the neck of the oil-reservoir but in such manner that it may be readily removed when desired.

My invention further relates to the devices by which the globe-holder and globe are raised from and supported above the burner in order to permit the trimming and lighting of the wick, the filling of the reservoir, or the cleaning of the lantern.

As a result of my improvements, the structure of the lantern is materially simplified and cheapened, while it at the same time is convenient and efficient in use.

In order to make my invention more clearly understood, I have shown in the accompanying drawings means for carrying the same into practical effect.

In said drawings, Figure 1 is a front view of a tubular lantern having my improvements applied thereto. Fig. 2 is a side view, on a larger scale, of so much of the oil-reservoir and burner as is necessary to an understanding of that part of my invention which relates to these devices. Fig. 3 is a perspective view of said parts with the burner-cone removed. Fig. 4 is a sectional view on line 4 4, Fig. 2. Fig. 5 is a side and Fig. 6 a front elevation of the upper portion of the lantern, showing the means for raising and supporting the globe-holder. Fig. 7 is a plan view of the devices shown in Figs. 5 and 6. Fig. 8 is a plan view of the lower portion of the globe-holder.

Referring to the drawings, A is the base of the lantern, containing the usual oil-reservoir.

B are the air-tubes terminating in the neck A′ of the reservoir and extending from the central tube C at the upper part of the lantern in the usual manner.

F is the bell, provided with wires *i*, adapted to clasp the upper end of the globe O, and provided also with the sleeve G, which fits and is adapted to slide upon the central tube C.

M is the perforated base-plate which forms the seat for the lower end of the globe and which is connected with the bell F in any suitable manner—as, for instance, by a frame L. If desired, the plate M may be mounted so that it may be tilted to facilitate the insertion of the globe into the holder, or the plate may be otherwise secured to said frame.

m is a central aperture in the plate, which is adapted to surround and fit the burner-cone when the globe-holder is in its lowermost or normal position.

m′ is a second aperture in the outer portion of the plate M, through which the wick may be lighted without raising the globe-holder. This latter aperture is adapted to be closed by an oscillating plate M′ of suitable shape, which is secured by a vertical pivot m^2 to the plate M.

At its upper end the tube C is provided with a horizontal guide and stop-plate P, which is perforated at *p* to receive and guide the legs *q* of the raising and depressing rod Q. The latter is preferably formed of bent or coiled wire having at its center the loop *q′*, adapted to be conveniently grasped by the fingers for the purpose of raising or depressing the globe-holder, with which the lower ends of the legs *q* are connected by being soldered or otherwise secured to the sleeve G or to the bell F.

R is a spring-plate having a horizontal portion *r* and a vertical portion *r′* at right angles to each other. The former is soldered or otherwise rigidly secured to the top of the rod Q, while the latter or vertical portion passes through a T-shaped perforation *p′* in the plate P. At its lower end and near its upper end the spring *r′* is provided with lateral recesses or indentations r^2 r^3, which may be formed, as in the construction illustrated, by recessing the spring from opposite sides. The normal position of the spring *r′*, which the latter always tends by its elasticity to as-

sume, is in the outer portion of the perforation p', which outer portion is narrow, so that when the spring is in its normal position the recesses r^2 or r^3 will be engaged by the plate P, a narrow part r^5 of the spring entering the narrow part of the opening p' and any vertical movement of the globe-holder prevented. The inner portion of the perforation p' is, however, somewhat wider than the spring r', so that when the spring is pressed inward toward the rod Q the globe-holder may be freely moved vertically into either its raised or depressed position, whereupon the release of the spring will cause the latter to engage by its recesses r^3 or r^2 the plate P and secure the globe-holder in place.

I will now describe that portion of my improvement which relates to the burner. The upper portion of the neck A′ of the oil-reservoir, which in a tubular lantern will be the air-chamber, is cylindrical, and is provided upon opposite sides with two slots a, each of which has an open vertical portion extending to the top of the neck and a horizontal portion. The removable wick-tube E is adapted to fit within the neck A′, and the projecting ends of the wick-raising shaft E′ engage the slots a, the open ends of which are so situated as to receive the ends of said shaft when the wick-tube is inserted, and the lower ends of which slots extend horizontally in opposite directions, so that each of them may be entered and engaged by the shaft when the wick-tube is given a slight rotation in the proper direction.

D is the burner-cone, having a central flame-aperture d and provided around its lower edge with a flange d', adapted to fit over the neck A′. In said flange are formed slots d^2 of the same general character as the slots a, but extending oppositely thereto. The wick-holder being in position in the neck A′, as already described, the burner-cone D is fitted over the upper end of said neck, the vertical portions of its slots d^2 admitting the ends of the shaft E′. The cone D is then turned in the opposite direction to that in which the wick-tube was turned to effect its engagement, and the ends of the shaft E′ thereby received into the horizontal portions of the slots d^2. It will now be seen that by very simple means, which may be instantly operated, the wick-tube is securely locked in place. Such locking must be properly effected or the flame-orifice d will not register with the upper end of the wick-tube.

Certain of my improvements are adaptable to other illuminating devices than lanterns, and I wish my claims to be understood as extending to such applications of my invention.

It will be understood that the springs ordinarily used to press the globe-holder in one direction may be entirely dispensed with by the use of that form of catch or supporting device hereinbefore described.

Having thus described my invention, what I claim is—

1. In a lantern, the combination of a reservoir or air-chamber A′, provided with seats or recesses, a removable wick-tube having projections adapted to fit therein, and a cone having horizontal slots d^2, adapted to engage said projections, substantially as set forth.

2. In a lantern, the combination, with the oil-reservoir having a neck provided with slots a, of a wick-tube having a projecting wick-raising shaft E′, adapted to engage said slots, and a removable burner-cone adapted to fit said neck and having oppositely-extending slots d^2, whereby the shaft E′ may be engaged and locked in place, substantially as set forth.

3. In a lantern, the combination, with the main frame and a vertically-movable globe-holder mounted thereon, of a raising and depressing rod Q, connected with said holder, a plate P, secured to the main frame and engaging and guiding said rod and having an opening p', and a spring R, connected with and carried by said movable holder, wider than the narrow part of the opening p' and provided with narrow portions r^5 and recesses r^2 r^3, substantially as and for the purposes set forth.

4. In a lantern, the combination, with the main frame and a vertically-movable globe-holder mounted thereon, of a raising and depressing rod Q, connected with said holder, a plate P, secured to the main frame and engaging and guiding said rod, and a spring R, connected at its upper end rigidly with the upper end of said rod, extending outward and downward therefrom, and at its lower or free end engaging the plate P, substantially as set forth.

5. The combination, with the neck A′, having the slots a, of the removable wick-tube having projections adapted to engage said slots, and the removable burner-cone adapted to fit said neck and having shoulders which oppositely engage said projections, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

HARVEY LYSANDER JEWELL.

Witnesses:
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C. L. MARSTON.