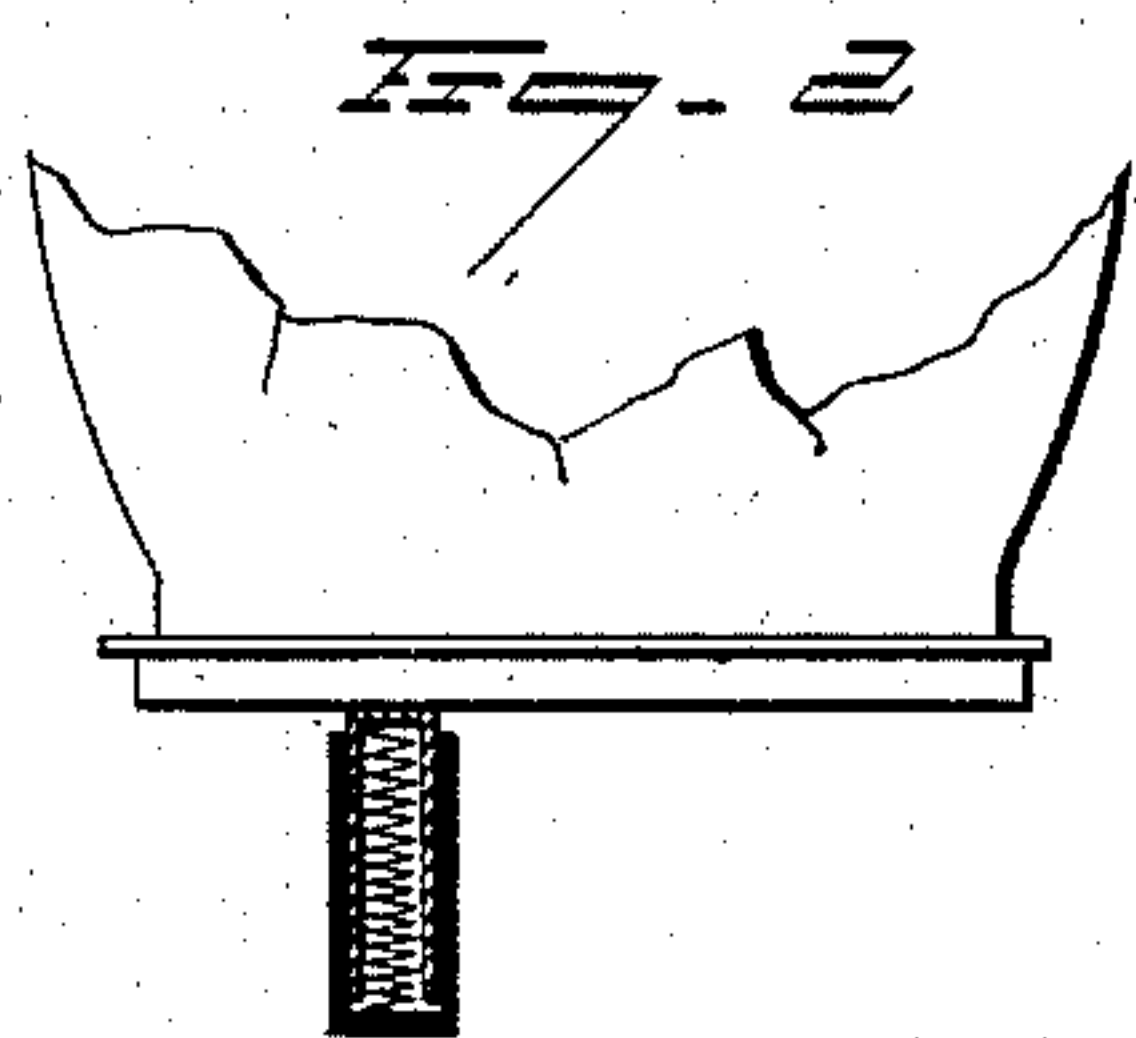
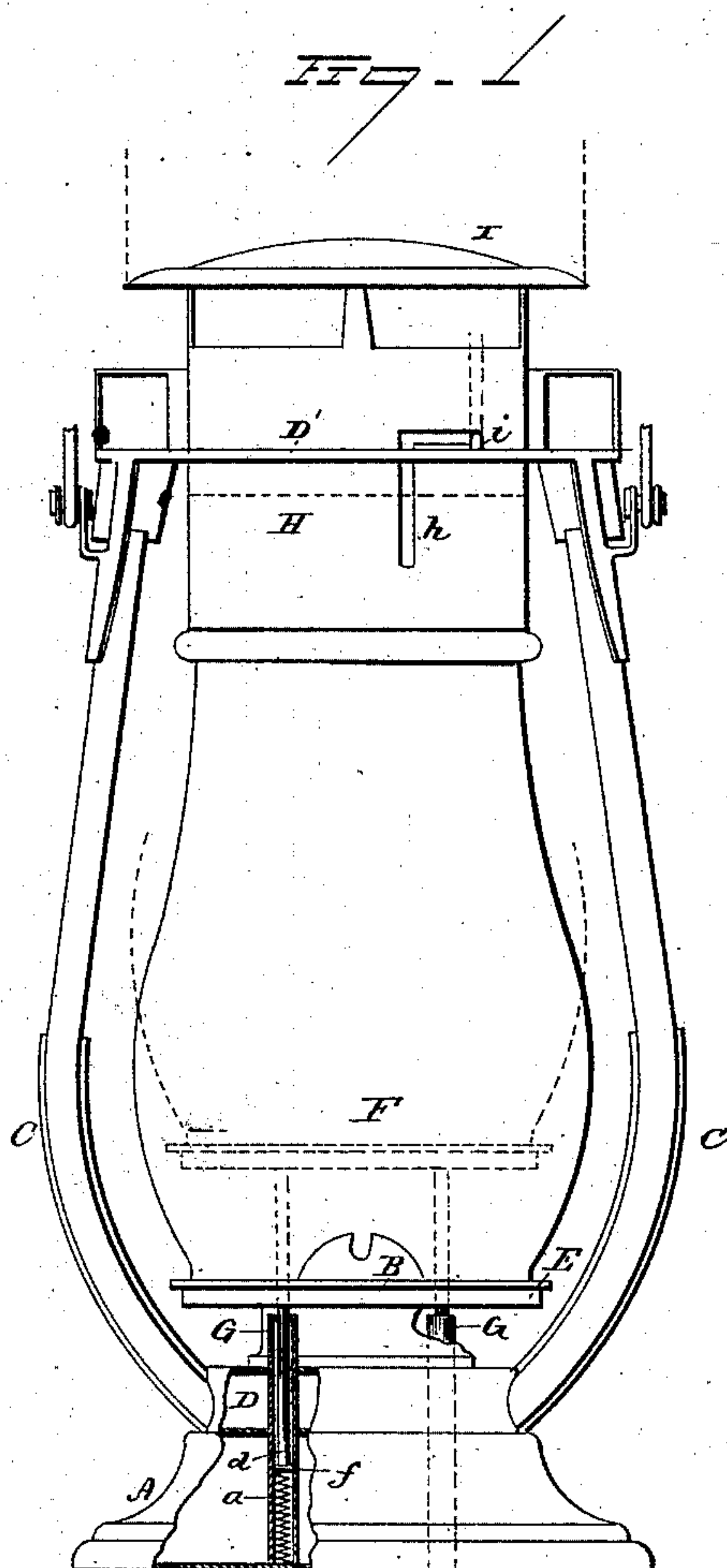


(No Model.)

T. LANGSTON.
LANTERN.

No. 284,442.

Patented Sept. 4, 1883.



Witnesses,
J. R. Shumway
L. S. Kellogg

Thomas Langston,
Inventor.
By atty.
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UNITED STATES PATENT OFFICE.

THOMAS LANGSTON, OF MERIDEN, CONNECTICUT, ASSIGNOR TO EDW. MILLER & CO., OF SAME PLACE.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 284,442, dated September 4, 1883.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LANGSTON, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lanterns; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional side view; Fig. 2, a modification.

This invention relates to an improvement in that class of lanterns in which the globe-holding portion at the top is made so as to be raised, and thereby permit the globe to be moved upward for the purpose of lighting or trimming, and such as seen in Letters Patent of the United States granted to me June 12, 1883, No. 279,403.

In my previous invention springs are applied in connection with the globe-holder at the bottom, which tend to raise the globe when it is released from engagement at the top. In that patent I show the springs as connected from the lower globe-holder by rods to the upper part of the lantern.

The object of my present invention is to apply springs and guides below the globe-holder; and it consists in two or more vertical tubes secured to the base and inclosing helical springs in connection with or so as to bear upward upon the globe-holder, combined with a holder for the upper end of the globe, arranged for vertical movement, and a locking device to secure said upper holder in its down position, as more fully hereinafter described.

A represents the base of the lantern, B the burner, C C the tubes which conduct the air into the base, and D the flange around the top, which supports the upper end of the tubes, all of a construction too well known to require detailed description.

E is the plate which surrounds the cone of the burner, preferably perforated, and upon which plate the lower end of the globe F rests, this plate forming the lower holder for the globe. Through the base of the lantern two or more tubes, G G, are arranged in a vertical

position, preferably extending to the bottom, as shown. These extend up to near the lower globe-holder, E. Within each of these tubes a helical spring, *a*, is arranged, taking a bearing at the bottom of the tube. From the holder E a rod, *d*, extends downward into each tube, having a head, *f*, upon its lower end, which bears upon the upper end of the springs, and so that when the globe-holder is in its down position the springs are compressed, the tendency of the spring being to force the plate and the globe it supports upward.

At the upper end of the lantern the usual ring, H, is arranged through the flange D, but so as to be moved and guided freely up and down through said flange, and provided with the usual wind-guard, I, at the top. This ring H fits the neck of the globe, and is provided with an inverted-L-shaped slot, *h*, into which a stud, *i*, on the flange D extends. The vertical part of the slot permits the ring to be moved up and down; but when down and turned to take the stud *i* into the horizontal part of the slot the ascent of the ring is prevented. When the ring H is in its down position and locked by having been turned to bring the stud *i* into the horizontal part of the slot, the globe and its plate E will have been forced down to their lowest position and the springs compressed. Then, when the ring H is turned to bring the stud *i* into the vertical part of the slot, the springs force up the lower holder and globe and throw up the ring until the lower end of the vertical part of the slot strikes the stud, and as seen in broken lines. The springs serve to retain the globe between its holding devices in this up position, and so far above the burner that the wick may be trimmed or lighted or the flame extinguished, as the case may be. Then, to return the globe, simply press the ring H downward until the horizontal part of the slot *h* engages the stud *i*.

If at any time it is desirable to remove the globe, it is only necessary to take hold of it with one hand and hold it in its down position, while with the other the ring H is raised from the neck of the globe. To replace the globe, set the lower end upon the lower holder while the ring is raised, and press it downward until

the neck of the globe will pass under the ring. Then the spring will draw the globe up into contact with the ring.

While I prefer to arrange the springs so as to be compressed by the downward movement of the rods *d*, this action may be reversed, the springs secured to the upper end of the tubes, and the rods passed down through the springs and secured to their lower end, so that in depressing the globe the springs will be extended.

Instead of the solid rods *d* to bear upon the springs, the rods may be tubular and work within the outer rods, *G*, in the manner known as "telescopic," and as seen in Fig. 2, with the spring within the inner tube or hollow rod. This will enable me to shorten the tubes, and so as to avoid the necessity of extending the tubes down through the base; yet I prefer to so extend the tubes through the base, as it makes a stronger construction than it otherwise would be.

By employing telescopic tubes either the outer or the inner tube may be attached to the globe-holder and the other to the base, the reversing of the position of the tubes having no effect upon the operation of the spring or the tubes as guides.

I do not wish to be understood as confining my invention to the device shown and described for locking the globe in its down position, as other known devices may be substituted therefor. Neither do I wish to limit my invention to the employment of the perforated plate as the lower globe-holder, as the lower holder may be simply a well-known wire ring to engage the lower end of the globe, leaving the perforated plate as a permanent part of the burner or base; or the plate may be dispensed with entirely, it only being essential, so far as the lower holder is concerned, that

there shall be some device to support the globe at its lower end and that holding device in connection with the springs below.

I claim—

1. The combination of the lower globe-holder, vertical tubes arranged upon the base beneath said holder, springs within said tubes in connection with said lower holder to raise said lower holder and the globe thereon, a holder for the upper end of the globe, arranged in suitable guides, and a locking mechanism to secure said upper holder, globe, and lower holder in their down position, substantially as described.

2. In a lantern, the combination of the lower globe-holder, the vertical tubes *G*, extending down into the base, springs within said tubes, a globe-holder having rods extending into said tubes and in connection with said springs, a holder for the upper end of the globe, supported in suitable guides, and with a locking mechanism to secure said upper holder, globe, and lower holder in their down position, substantially as described.

3. In a lantern, the combination of the movable holder for the lower end of the globe, two or more vertical springs arranged below and in connection with said holder, the action of which is to raise said holder, a holder for the upper end of the globe, arranged in vertical guides, and a locking device to hold said upper holder, globe, and lower globe-holder in their down position, the said springs operating to raise said lower holder, globe, and upper holder when released from the locking mechanism of the upper holder, substantially as described.

THOMAS LANGSTON.

Witnesses:

EDWARD MILLER, Jr.,
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