(No Model.) 3 Sheets—Sheet 1.

J. H. KELLY & E. P. FOLLETT.

LANTERN.

No. 378,889. Patented Mar. 6, 1888.

Fig. 2.

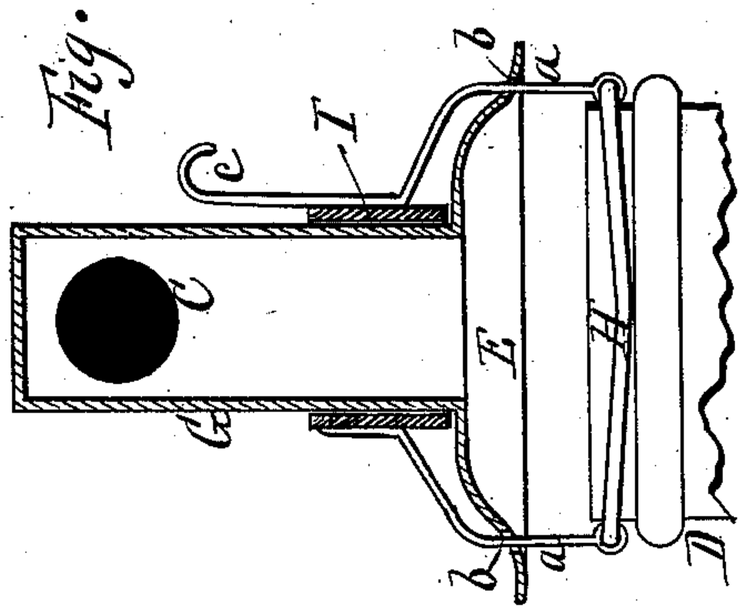

Fig. 3.

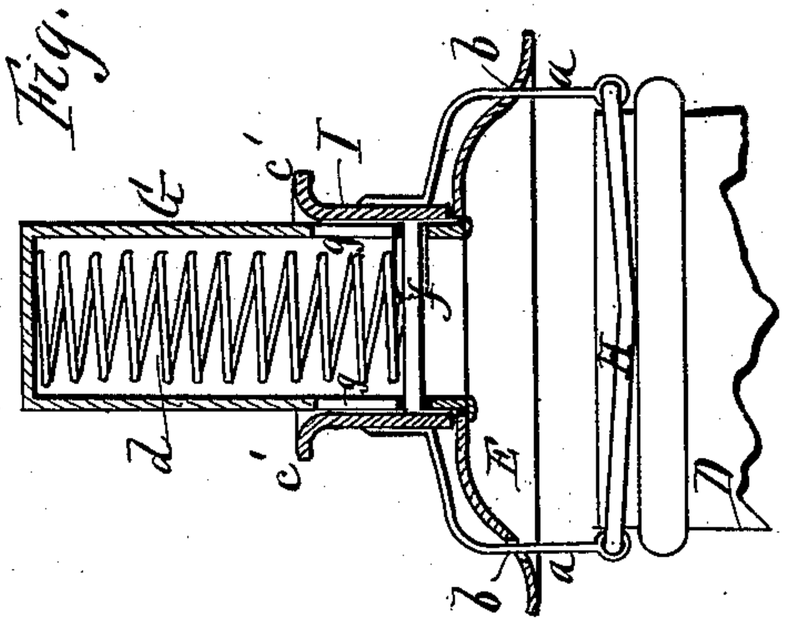

Fig. 1.

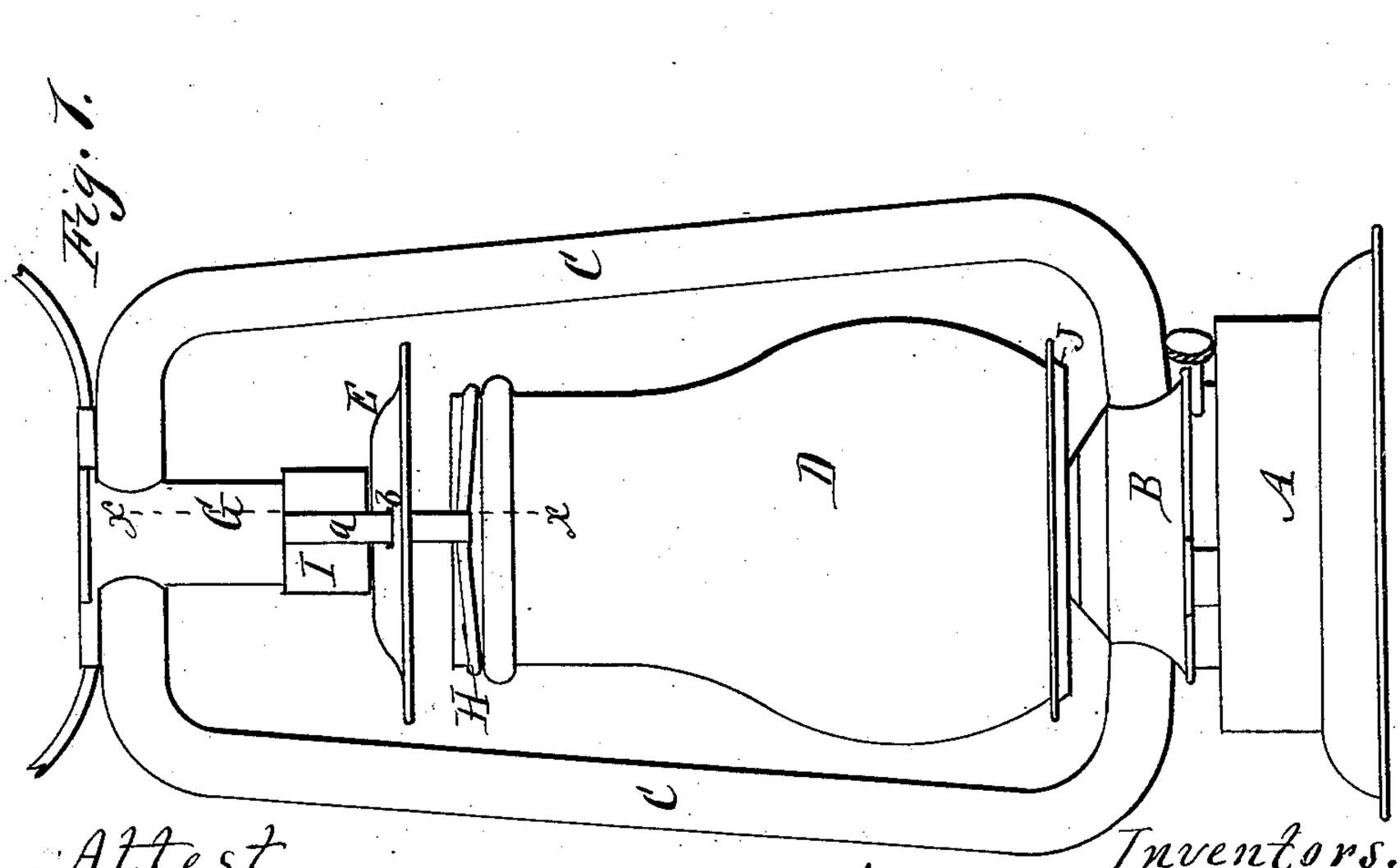

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Fig. 5.

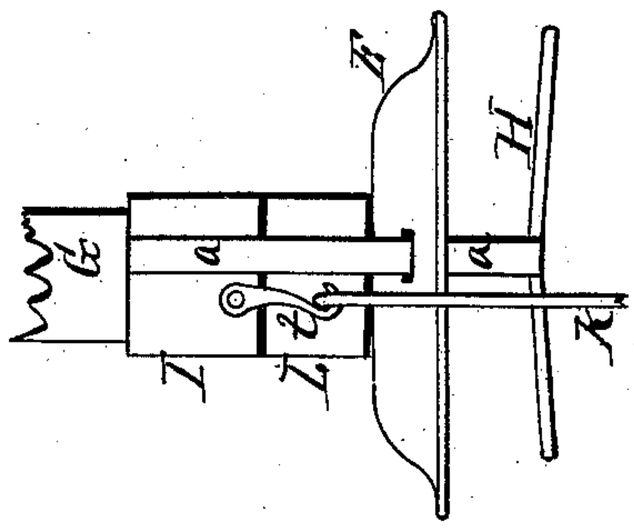

Fig. 3.

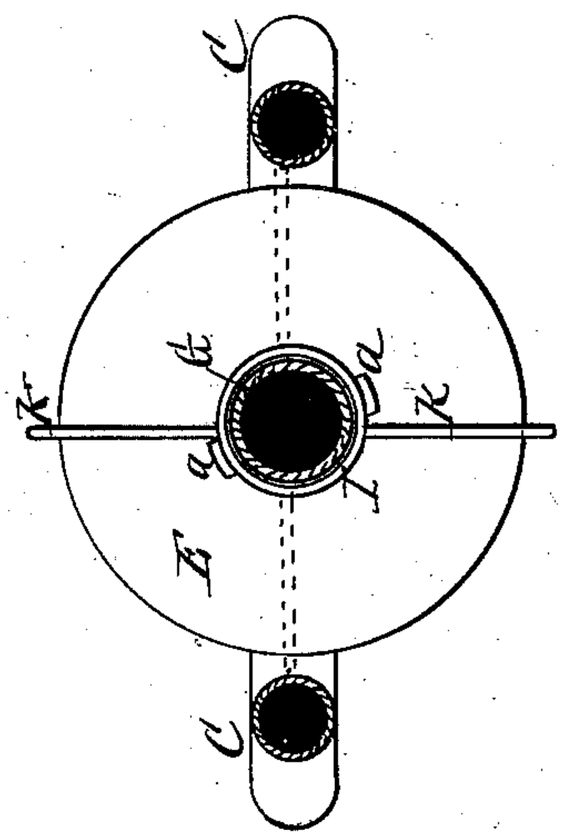

Fig. 7.

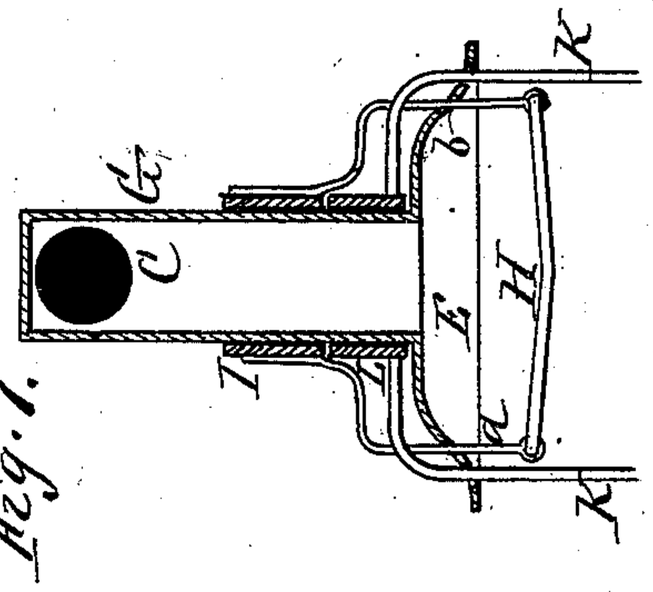

Fig. 6.

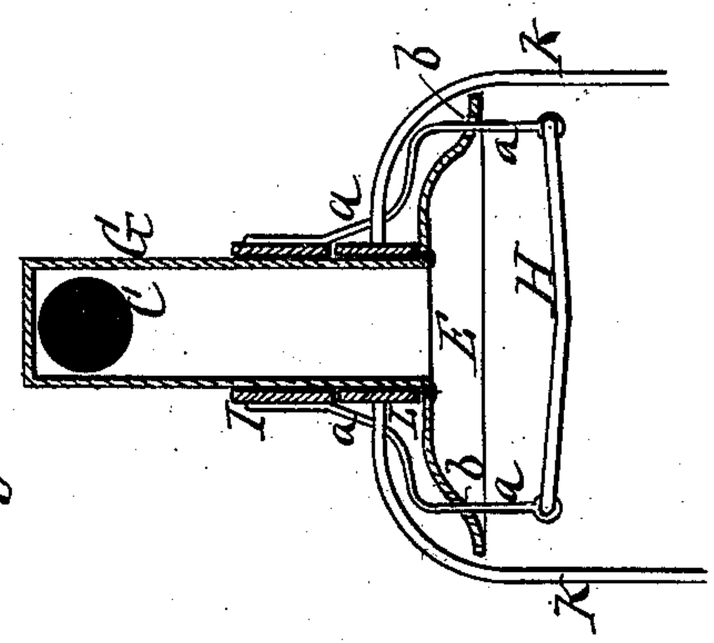

Fig. 4.

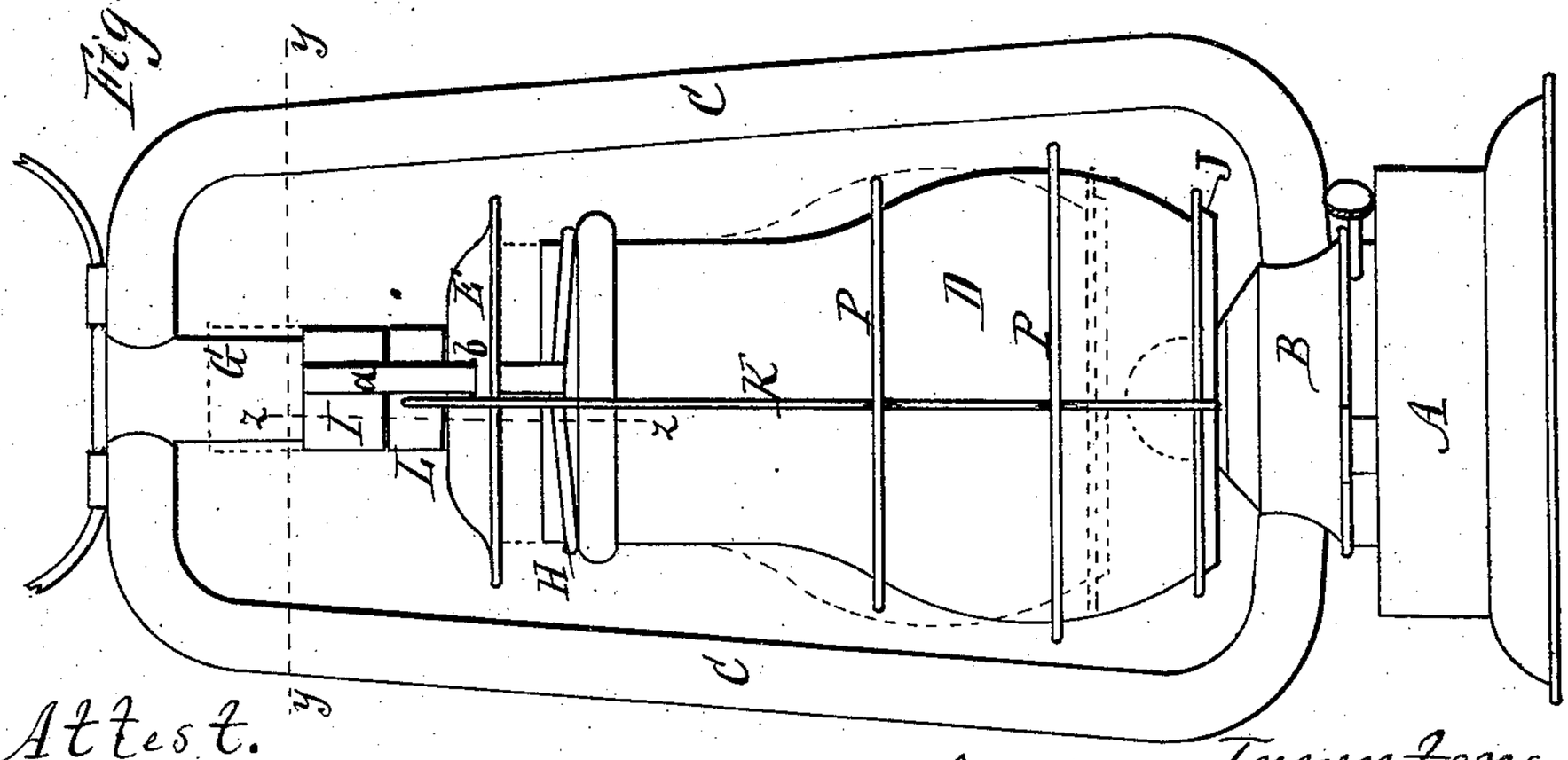

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Fig. 9.

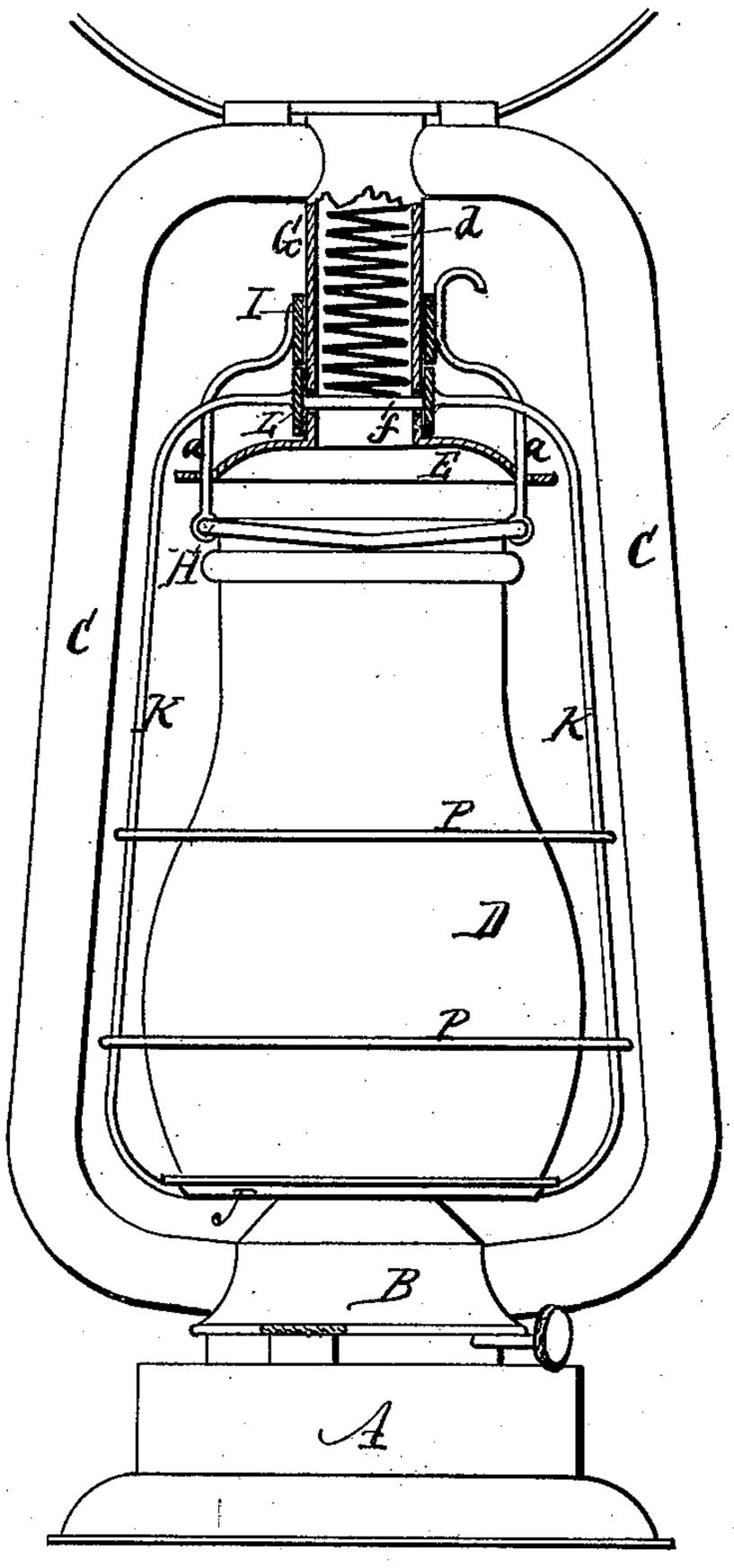
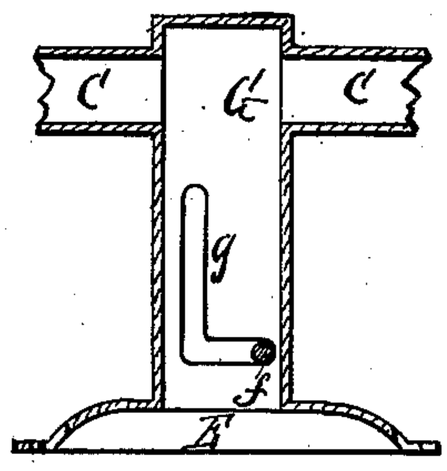


Fig. 10.



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UNITED STATES PATENT OFFICE.

JAMES H. KELLY AND EDWARD P. FOLLETT, OF ROCHESTER, NEW YORK;
SAID FOLLETT ASSIGNOR TO SAID KELLY.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 378,889, dated March 6, 1888.

Application filed September 6, 1886. Serial No. 212,851. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. KELLY and EDWARD P. FOLLETT, both citizens of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Lanterns; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

Our improvement relates to what are known as "tubular lanterns," and is designed to accomplish the convenient and easy raising of the globe to light, extinguish, or trim the wick, which device can at the same time serve as a guard to the globe; also, to allow easy insertion and removal of the globe, all as hereinafter described.

In the drawings, Figure 1 is a front elevation of a lantern embodying our improvement. Fig. 2 is a vertical section through the top of the same, in line *x x* of Fig. 1. Fig. 3 is a view similar to Fig. 2, but showing a modification. Fig. 4 is an elevation similar to Fig. 1, but showing wires for raising the globe without detaching it from the lantern. Fig. 5 is a cross-section of Fig. 4 in line *y y*. Fig. 6 is a vertical section in line *z z* of Fig. 4. Fig. 7 is a section in same line, but showing a modification. Fig. 8 is an elevation of the top of the lantern, also showing a modification. Fig. 9 is an elevation of the lantern, partially in section, showing the arrangement of the stay-wires and the spring for pressing them down. Fig. 10 is a vertical section of the fixed tube at the top of the lantern, showing one of the bayonet-slots in which the cross-pin of the stay-wire collar works.

In the drawings, A indicates the oil pot or fount; B, the air-chamber; C C, the side tubes; D, the globe or chimney; E, the bell top or cap, and G the stationary tube at the top, to which the side tubes are attached. These parts are of ordinary construction.

Our improvement is as follows:

H is a clamping-ring that shuts down on top of the globe to hold it in place. It may be made of wire or a band of metal, and is vertically movable up and down independently of any movement of the bell top or cap E. It has one or more arms, *a a*, which pass upward, and may extend loosely along the tube or be attached to a collar or equivalent device, I, that slides on the fixed tube G above the bell top or cap E. These arms may extend either loosely through holes *b b*, or they may pass around the outer edge of the bell top or cap. The object is to enable the clamping-ring to be moved up and down to release and clamp the top of the chimney independent of any movement of the bell top or cap itself; and other devices—for instance, a thumb-piece—might be used to raise the clamping-ring. Fig. 2 shows an extension of the arm *a*, with a thumb-piece, *c*, attached by soldering or otherwise to the collar I, and Fig. 3 shows a simple flange or rim, *c'*, of the collar, which answers the same purpose. Fig. 3 also shows a spiral spring, *d*, in the tube G, resting on a cross-pin, *f*, for forcing the clamping-ring down; but this is not absolutely essential, as the clamping-ring can be made to hold by its own weight and contact, or catches may be used to hold it down. The novelty in this part of our invention consists in the combination of a vertically-movable clamping-ring with a bell top or cap that is relatively stationary, thereby allowing ready insertion or removal of the globe.

In some kinds of lanterns it is desirable to use in connection with the sliding clamping-ring above described a wire frame surrounding the globe and attached at the bottom to the globe or the globe-supporting disk J, so that while all the advantages of the sliding clamp-ring, as above described, are retained, and the globe can be readily removed, the globe can at the same time be retained, and can be elevated, as indicated by dotted lines, Fig. 4, to enable the lantern to be lighted, extinguished, or trimmed. In such case stay-wires K K are attached to the globe or globe-supporting disk, extending up around the globe, passing either outside the bell top or cap E, as shown in Figs. 5 and 6, or through holes in said bell top or cap, as shown in Fig. 7, and attached at the top to a second collar, L, that rests around the tube G, beneath the collar I. Both of these collars turn freely on the tube G, by which

means the stay-wires K can be turned from a position at right angles to the side tubes, as shown by full lines, Fig. 5, to a position more or less in line with the side tubes, as indicated by dotted lines in the same figure, to enable the globe to be removed from the stay-wires when necessary. These stay-wires thus serve as guards, standing at right angles to the side tubes, and they can be turned to one side out of the way to enable the globe to be applied or removed. If desired, the dome E may be fitted loosely on the tube G, as shown in Figs. 3 and 6, to allow it to rise a limited distance, so that as the top of the globe strikes it it will rise sufficiently to enable the bottom of the globe to rise above the burner more than sufficient to light the lantern, and also to allow the dome to turn sufficiently on its axis to allow the wires K to turn to one side to remove the globe. This is necessary where the stay-wires K pass through holes in the dome, as shown in Fig. 7.

In case the pin *f* is used to support the spring *d*, as shown in Fig. 3, the tube G must also have bayonet-slot *g g* to enable the collar I or arm *a* to turn with the bell top or cap. The clamping-ring and stay-wires can each be operated separately, if desired, or both be operated together by lifting on the lower collar, or by connecting the upper collar with the lower one by a hook, *t*, Fig. 8, or other equivalent means, and lifting on the arm *a* or the upper collar, I.

Fig. 9 shows a spring in the stationary tube bearing down upon a cross-pin attached to the collar of the stay-wires, by which means the globe is held down against accidental displacement. Fig. 10 shows one of the bayonet-slots in which the cross-pin rests and by which the stay-wires can be either raised vertically or turned axially. The advantages of these stay-wires over those hitherto used are that, in addition to their use for the purpose of raising the globe, they can stand intermediately between the side tubes, and thus serve as guards, and can be turned to one side in line with the side tubes to allow the globe to be inserted and removed, instead of standing always in line with and in many cases sliding in guides on the side tubes, and in no case acting as guards to the lantern.

P P are one or more circular guard-rings which slip loosely down over the stay-wires K K and rest in indentations made in said stay-wires. They, or the upper one, can be slipped up above the top of the globe when the latter is to be removed. If desired, both rings may be connected together by stays to form one device.

Having described our invention, we do not claim, broadly, stay-wires inclosing the globe and moving up and down with it.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a tubular lantern, the combination, with the central tube, G, of the perforated stationary bell E, the movable band I, mounted on said tube above said bell, the globe-ring H, and the arms *a a*, passing through said perforations in bell E and connecting the band I and globe-ring, as and for the purpose specified.

2. In a tubular lantern, the combination, with a central tube, a bell-top, and a globe, of a clamping-ring for holding the top of the globe, a supporting-disk for the globe, a collar on the central tube, and stay-wires attached to or connected with the disk and collar and having movement independent of the bell-top, as set forth.

3. In a tubular lantern, the combination, with a central tube, a bell-top, and a globe, of a clamping-ring for holding the top of the globe, stay-wires inclosing and supporting the same, and collars on the tube, with which the clamping-ring and stay-wires respectively connect, and by which they are independently operated, as set forth.

4. In a tubular lantern, the combination, with a central tube, a bell-top, a globe, and a clamping-ring for holding the top of the globe, of a supporting-disk for the globe and stay-wires inclosing and supporting the globe (said stay-wires being attached to the globe-supporting disk) and revolubly connected with the central tube, forming guards capable of rotary or vertical movement, as and for the purpose specified.

5. In a tubular lantern, the combination, with a central tube, a bell-top, a globe, and a clamping-ring for holding the top of the globe, of a supporting-disk for the globe, stay-wires inclosing and supporting the globe (said stay-wires being attached to the globe-supporting disk) and revolubly connected with the central tube, forming guards capable of rotary or vertical movement, and the separate guard ring or rings encircling the stay-wires, as and for the purpose specified.

6. In a tubular lantern, the combination of a central tube, a bell-top, a globe, a clamping-ring for holding the top of the globe, stay-wires inclosing the globe and connected with the globe-supporting disk, and a collar on the tube, with which the stay-wires are connected, said stay-wires standing intermediately of the side tubes, forming guards between the side tubes, and capable of being turned to one side to allow the insertion and removal of the globe, as described.

7. The combination, with the central tube of a tubular lantern, said tube being slotted, as shown, of a stationary bell-top, a movable band mounted on said tube, provided with a pin or pins working in the slots of the central tube, a spring in said tube resting on said pin or pins, a globe-ring, and arms connecting the globe-ring and movable band, as and for the purpose specified.

8. The combination, in a tubular lantern, of a central tube, bell-top, and clamping-ring for holding the top of the globe, said tube be-

ing slotted, as shown, a movable band mounted on said tube, provided with a pin or pins working in the slots of the central tube, a spring in said tube resting upon said pin or pins, a globe, a supporting-disk for the globe, and stay-wires connected with the globe-supporting disk and movable band, forming guards and capable of rotary or vertical movement, as described.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

JAMES H. KELLY.
EDWARD P. FOLLETT.

Witnesses:
WM. J. MCPHERSON,
R. F. OSGOOD.