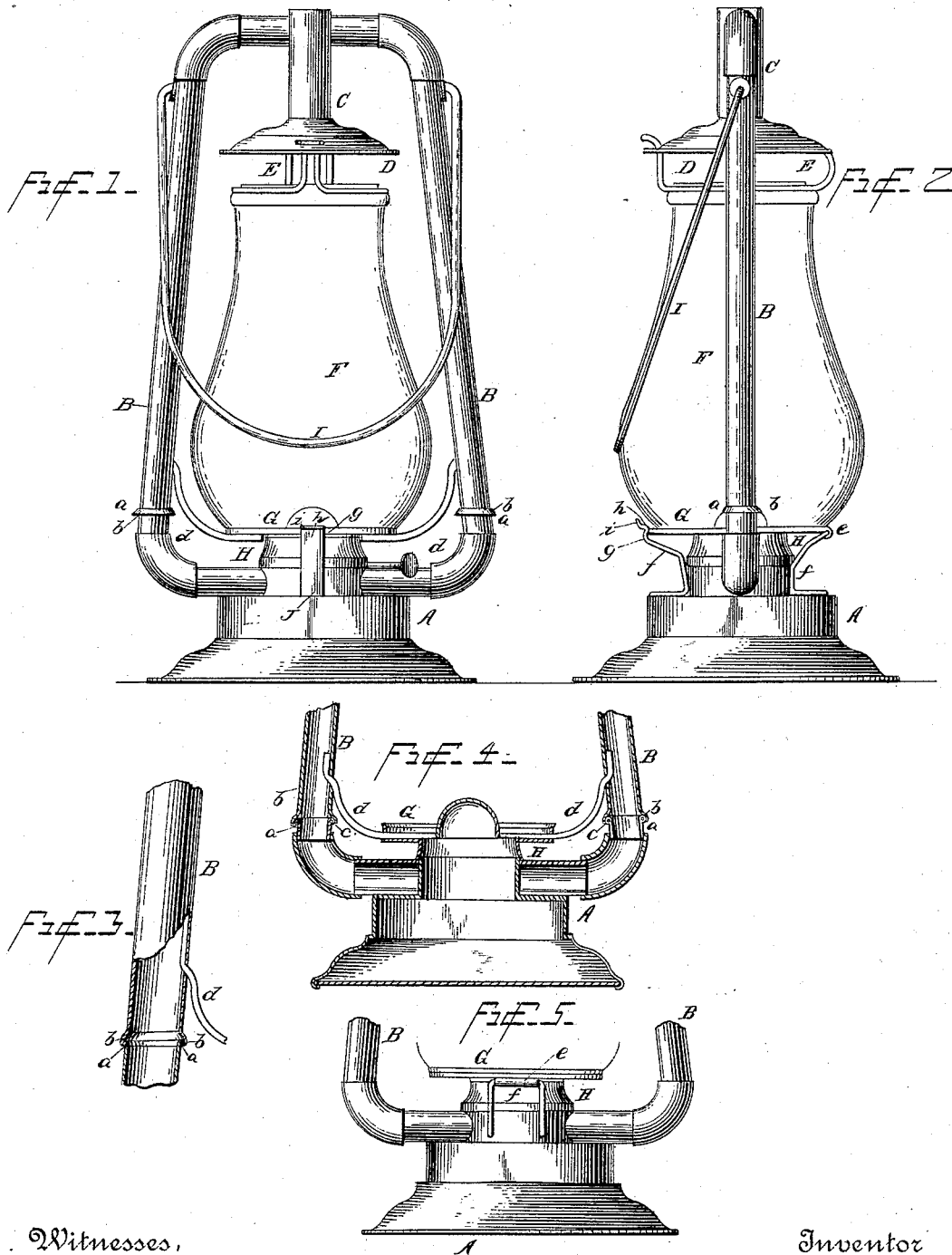


(No Model.)

S. D. LOCKWOOD.
TUBULAR LANTERN.

No. 418,037.

Patented Dec. 24, 1889.



Witnesses,
Norris A. Clark.
A. J. Middleton

Inventor
Sanford D. Lockwood
By his Attorney
Frank L. Dyer

UNITED STATES PATENT OFFICE.

SANFORD D. LOCKWOOD, OF WHEELING, WEST VIRGINIA.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 418,037, dated December 24, 1889.

Application filed February 28, 1889. Serial No. 301,589. (No model.)

To all whom it may concern:

Be it known that I, SANFORD D. LOCKWOOD, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Tubular Lanterns; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to various new and useful improvements in tubular lanterns.

The principal objects of my invention are to provide and produce a tubular lantern in which a convenient and ready access may be had to the burner-cones for the purpose of lighting and trimming, which can be made as economically and readily as heretofore, and in which the action of the circulating currents of air is unimpeded, and when all the parts are in their normal position there can be no possibility of an accidental separation of the same.

In such a lantern as I have invented, which will be fully hereinafter described, there is no movement of the canopy or bell on the central air-conducting tubes, and hence the joint at this point will be perfect, and for the reason of the peculiar construction of the joints in the side air-conducting tube any leakage at this point will be inappreciable.

The lantern is illustrated in the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate corresponding parts in each view.

In the drawings I have illustrated the lantern in the following views:

Figure 1 is a front elevation of the entire lantern; Fig. 2, a side elevation of the same; Fig. 3, a section of a portion of one of the side air-conducting tubes, showing the joints therein; Fig. 4, a sectional view of the base of the lantern with the globe-supporting disk in position over the burner-cones; and Fig. 5, an elevation of a portion of the lantern, showing the hinge.

In these views I have shown my improvements embodied in a tubular lantern of a well-known construction, having the base A, side air-conducting tubes B B; central air-

conducting tube C, canopy or bell D, globe-grip E, globe F, globe-supporting disk G, burner-cones H, and bail I, and I make no claim to these elements. This form of lantern is, in general, precisely like that of those that are now largely in use, with the exception that the canopy or bell D, instead of being adapted to move on the central air-conducting tube, is soldered or otherwise integrally secured thereto. The side air-conducting tubes are divided at the points *a a*, so that the lantern will be divided practically into two parts. At the lower part of the upper portion of the side air-conducting tubes, adjacent to the dividing-lines *a a*, is a downwardly-projecting flange *b b*, and on the upper part of the lower portion of these side air-conducting tubes is formed a circular bead *c*, which may be made of wire soldered in position. When the two parts of the side conducting-tubes are brought together, the bead *c* will enter and fit snugly within the flanged opening *b*, and the joint at this point will be comparatively perfect. The globe-supporting disk G is rigidly secured to the side air-conducting tubes by the braces *d d*, which are soldered or otherwise secured in position. These braces not only serve to support the globe-supporting disk, but in a measure stiffen the lower end of the upper portion of the side air-conducting tubes. The globe-supporting disk G is provided at one side on its under face with a sleeve *e*, which may be soldered in position, and with which the upper portion of a hinge-piece *f* engages. The construction of this hinge-piece is immaterial, and its form may be changed in many particulars; but, by preference, I make it of a single piece of wire secured at its lower end, by means of soldering, to the top of the base of the lantern, and which is of the configuration shown in the drawings. By means of such a hinge it will be apparent that the upper portion of the side air-conducting tubes, the central air-conducting tubes, canopy or bell, globe, and globe-supporting disk may be swung away from, so as to be at right angles to, the base, thereby giving free and unimpeded access to the burner-cones for the purpose of lighting and trimming, and to the oil-cap for filling the oil-chamber with the burn-

ing-fluid. The other side of the globe-supporting disk G is provided with a pocket or recess *g*, and engaging with this pocket is a flange *h* of the latch J. This latch is made
 5 of spring metal—such as brass, for instance—and is soldered at its lower end either to the top of the base or to the side of the oil-well, and the flange of this latch is preferably made
 10 integral with the same by simply bending the metal inward and then back on itself at the proper point. The lower face of the pocket *g* is made, preferably, inclined, so that when
 15 the upper parts of the lantern are brought down in position over the lower parts of the same this inclined face of the pocket will cause the flange of the latch to be first forced
 20 outwardly, so that an automatic engagement of the two will take place. Since the lower portion of the pocket is inclined upwardly, it follows that when any strain is brought
 25 laterally on the upper portion of the lantern as would tend to disengage the two parts thereof the flange on the latch would be forced deeper into the pocket and the latch would
 30 tend to grip the same more tightly. The upper portion of this latch is formed into a thumb-piece *i*, by which the latch may be disengaged from the pocket in order that the two parts of the lantern may be separated.
 35 By making the canopy or bell integral with the central tube the joint will not only be very perfect at this point, but the globe will be held much more rigidly in position than in those devices having a movable canopy.
 It should not be understood that I am

limited to the parts of my invention precisely as I have described them, for these parts may be changed or varied in many particulars. For instance, the joint at the side air-conducting tubes may be packed with a suitable
 40 packing, such as rubber; or the flange and bead might be dispensed with; or the joint might be made telescopic, and the hinge may be changed and varied in many particulars, as also may the latch; but the arrangement
 45 of parts as just described I regard as preferable.

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

An improved tubular lantern having its side tubes divided at or near the plane of the burner, a bead *a* on the lower section of each side tube, a flange *b* on the upper section of
 50 each side tube and engaging with said bead for the purposes mentioned, connecting-braces *d d*, connecting the globe-disk with the upper sections of the side tubes, a hinged
 55 piece connecting the said disk with the base, a globe supported between said disk and an immovable canopy, and a spring-latch
 60 mounted on the base and engaging with said disk, substantially as set forth.

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

SANFORD D. LOCKWOOD.

Witnesses:

I. S. LOCKWOOD,
 BEN. STANON.