

(No Model.)

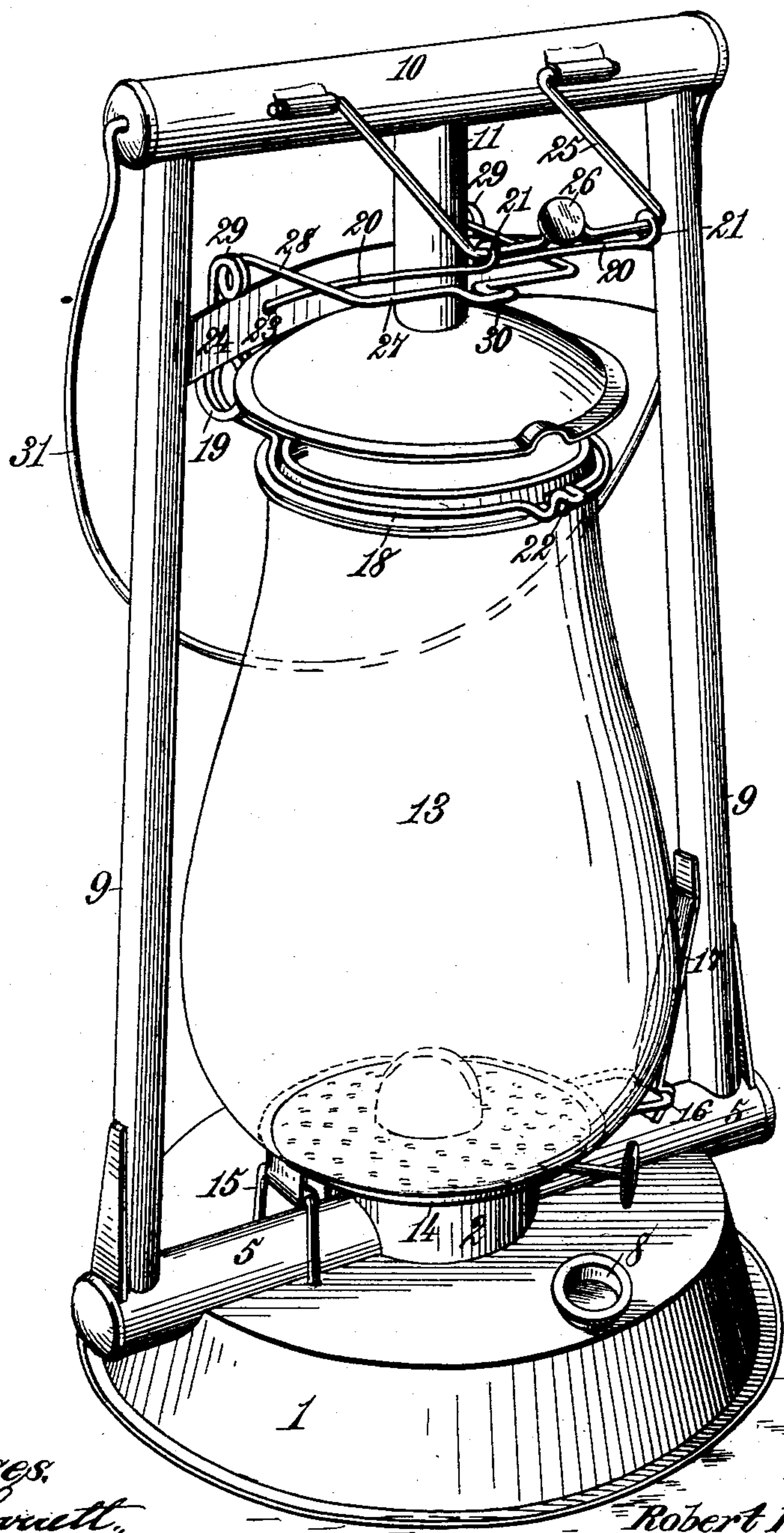
2 Sheets—Sheet 1.

R. HERMANCE.
TUBULAR LANTERN.

No. 587,579.

Patented Aug. 3, 1897.

Fig. 1.



Witnesses:
Robert Everett,
Dennis Sumbly,

Inventor:
Robert Hermance,
By *James L. Norris,*
Atty.

(No Model.)

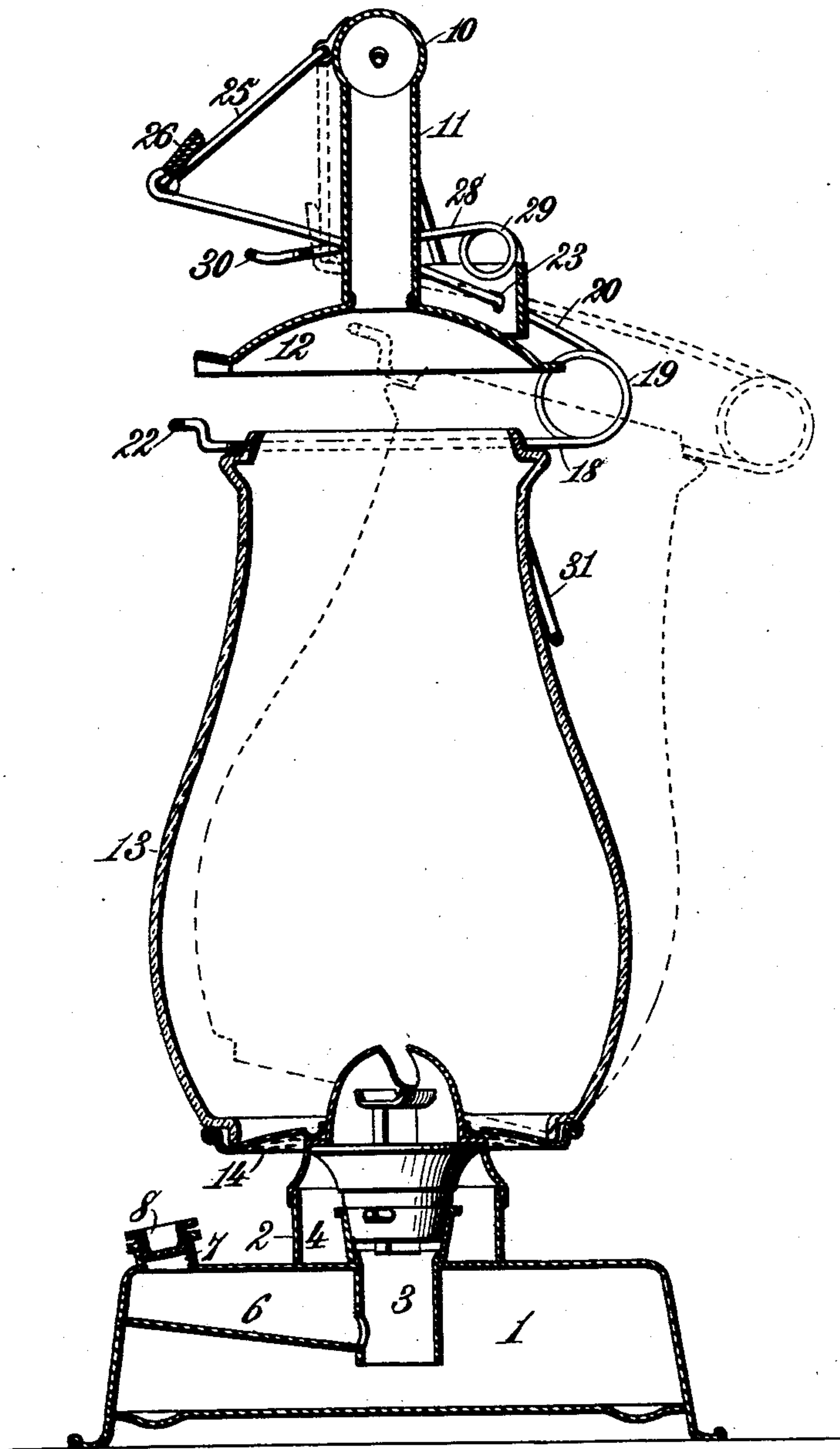
2 Sheets—Sheet 2.

R. HERMANCE.
TUBULAR LANTERN.

No. 587,579.

Patented Aug. 3, 1897.

Fig. 2.



Witnesses:
Robert G. Pratt,
Dennis Sumby,

Inventor:
Robert Hermance.
By James L. Norris,
Att'y.

UNITED STATES PATENT OFFICE.

ROBERT HERMANCÉ, OF FORT ANN, NEW YORK, ASSIGNOR OF TWO-THIRDS TO HARVEY G. ELLIS AND DANIEL V. BROWN, OF GLENS FALLS, NEW YORK.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 587,579, dated August 3, 1897.

Application filed March 10, 1897. Serial No. 626,781. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HERMANCÉ, a citizen of the United States, residing at Fort Ann, in the county of Washington and State of New York, have invented new and useful Improvements in Tubular Lanterns, of which the following is a specification.

This invention relates to tubular lanterns, and has for one of its objects to provide an improved construction of the oil-reservoir whereby liability of spilling oil from the lamp or lantern will be obviated in case the lantern or lamp is tipped over, the filling-tube through which the oil-reservoir is supplied being connected beneath the top of the reservoir with a wick-tube extended toward the reservoir-bottom and the said filling-tube having its under side inclined toward the wick-tube, so as to facilitate feeding of oil into the reservoir without liability of overflow at the filling-orifice or neck.

It is another purpose of my invention to provide an improved construction and arrangement of devices for tilting the globe to give access to the burner when it is desired to light the lantern.

The invention consists in features of construction and novel combinations of parts, as hereinafter described and claimed.

In the annexed drawings, Figure 1 is a perspective of a tubular lantern embodying my improvements. Fig. 2 is a central vertical section of the same with the globe tilted to permit lighting the burner.

The oil-reservoir 1 may have any preferred outward form and will be made from metal or other suitable material. Upon the top of this reservoir is the usual neck 2, surrounding the upper portion of the wick-tube 3, concentric therewith, but separated from said wick-tube by an annular space 4, with which the inner ends of the horizontal tubes 5 communicate.

The wick-tube 3 is extended down toward the bottom of the oil-reservoir, and it has communicating with it on one side and beneath the top of the reservoir a horizontally-arranged tube 6, the outer end of which connects with a filling-orifice or neck 7, that is located in the top of the reservoir and provided with a screw-cap 8 or other suitable stopper. It is preferable to arrange this fill-

ing-tube 6 at about a right angle to the tubes 5, and its bottom should have a suitable incline to facilitate the feeding of oil into the reservoir through the said filling-tube 6 and the wick-tube 3, with which it communicates. This inclination of the filling-tube 6 toward the wick-tube 3 facilitates the flow of oil into the reservoir and obviates liability of overflow at the filling-orifice 7 in supplying the lamp with oil. Owing to the arrangement of these tubes 3 and 5 the oil contained in the reservoir 1 will be so effectually trapped that it cannot spill out in the event of the lantern being knocked over.

It will be seen that the frame of the tubular lantern comprises the usual vertical side tubes 9, the lower ends of which communicate with the horizontal tubes 5 on the oil reservoir or base. At their upper ends these vertical tubes 9 communicate with and are connected by an upper horizontal tube 10, from the central portion of which depends a vertical tube 11, supporting at its lower end a rigidly-attached dome 12, the under side of which is in communication with the tubes 10, 9, and 5 through the open lower end of the vertical tube 11. The tubes 10 and 11 are rigidly connected and afford a firm support for the dome.

The globe 13 normally rests on a globe-support 14, that has a central opening to fit around the burner. This globe-support 14 is provided with numerous perforations, as shown, and at one side it is hinged to a support 15 on the top of the oil-reservoir. Its other side is provided with an eye or loop 16 for engagement with a depending spring-catch 17, attached to the inner side of one of the vertical tubes of the lantern-frame. By this arrangement of the spring-catch 17 it is entirely out of the way and is always ready for engaging the eye or loop 16 as soon as the globe-support 14 is lowered.

The upper end of the lantern-globe 13 is held by the ring portion 18 of a wire spring-clamp that comprises also the coiled springs 19 and upper arms 20, having eyes 21 in their extremities. A thumb piece or projection 22 is formed in the front portion of the clamp-ring 18, as shown. It will be observed that the arms 20, springs 19, and ring 18, with its

thumb projection 22, are all constructed from a single piece of wire of suitable strength and elasticity. The arms 20 are passed through guide-openings 23 in a brace or bridge-piece 24, secured to the vertical tubes 9 near their upper ends. The eyes 21 in the ends of these arms 20 are engaged with a stirrup 25, that is hinged to the upper horizontal tube 10 of the lantern. On the transverse portion of this stirrup 25 there is a thumb-rest 26, so that by placing the hand on the top of the lantern-frame and pressing with the thumb against said thumb-rest 26 the arms 20 will be forced backward through the guide-openings 23 and downward toward the dome 12, thereby compressing the springs 19 and tilting the upper end of the globe 13 rearward. When the stirrup 25 has been thus pressed to its extreme limit in substantial contact with the rigid depending tube 11, the lower portion of the stirrup will be engaged and locked by the transverse connecting portion or cross-bar 27 of two spring-arms 28, having coiled springs 29 near the ends, which are secured to the brace or rigid bridge-piece 24.

In the rearward movement of the stirrup 25, under pressure on the thumb-rest 26, as just described, the arms 20 will come in contact with and force the cross-bar 27 downward, thereby compressing the springs 29, so that as soon as the stirrup 25 reaches its rearward limit and the pressure on the cross-bar 27 is relieved it will spring up in front of the lower portion of the stirrup 25 and thus hold the globe 13 locked back in a tilted position. While the globe 13 is thus tilted a lighted match can be readily inserted under the raised lower edge of the globe to ignite the wick at the burner. There is a projecting finger-piece 30 on the connecting cross-bar 27 of the spring-arms 28, and by pressing down on this finger-piece the stirrup 25 will be released, so that by the action of the springs 19 the globe 13 will be again seated on its support.

To the ends of the upper horizontal tube 10 there is pivoted a bail or handle 31, by which the lantern can be carried.

Whenever it is desired to remove the globe 13, the hand should be rested with fingers bearing on the upper horizontal tube 10, and then, with the thumb bearing upward on the projection 22 of clamp-ring 18, the said clamp-ring can be lifted from its engagement with the upper end of the globe, whereupon with the other hand the globe can be readily removed from its support. In like manner, too, the globe can be easily replaced when desired. In removing the globe 13 or in tilting it the globe-support 14 is in no way disturbed, being securely held in place by the spring-catch 17, before described. If it is desired to remove the burner for any purpose, the globe 13 will be first removed, and then by pressing back the spring-catch 17 the hinged globe-support 14 can be swung over to one side. The burner can then be removed and

replaced. On replacing the globe-support it will automatically engage with its spring-catch. The globe 13 can be then replaced and secured by the spring clamp-ring 18, as before.

The several parts of the lantern, as described, are simple, easily operated, and not liable to get out of order. By means of the mechanism for tilting the globe there is afforded a great convenience for quickly and easily lighting the lantern, even in a high wind, and the tilting of the globe away from and onto its seat or support is accomplished with great ease and convenience.

Should the lantern be knocked or tipped over, it will be impossible for the oil to spill, as it is effectually trapped within the oil-reservoir, and thus there is no risk of fire resulting from such an accident.

The wick-tube 3 should have its lower end extended as near to the bottom of the oil-reservoir as practical, relative to the diameter and depth of said reservoir, so that the trapping of the oil will be insured without obstructing the filling of the reservoir and without reducing its capacity.

What I claim as my invention is—

1. In a tubular lantern, an oil-reservoir having a wick-tube extended therein toward the bottom of the reservoir and a filling-tube extended beneath the reservoir-top and having a bottom inclined toward the wick-tube and communicating therewith at the lower end of said inclined bottom, the other end of the filling-tube being provided with a stoppered filling-orifice above the higher part of the inclined tube-bottom, substantially as and for the purposes described.

2. In a tubular lantern, the combination with the tubular frame, the globe, the globe-support, and the dome supported by a vertical tube depending rigidly from the upper horizontal tube of said frame, of a brace secured transversely to the upper portions of the side tubes and provided with guide-openings, a spring-clamp engaging the upper end of the globe and provided with a finger-piece and with spring-arms passed through said guide-openings, a stirrup hinged to the upper horizontal tube of the lantern-frame and having a cross-bar engaged by eyes on the ends of said spring clamp-arms, a thumb-piece on said stirrup, the said stirrup and connected clamp-arms being adapted to exert a tilting action on the upper portion of the globe to raise one side of its lower edge from the globe-support, and spring-arms connected by a cross-bar adapted to engage said stirrup and hold the globe in its tilted position, substantially as described.

3. In a tubular lantern, the combination with the lantern-frame, the globe and the globe-support, of a spring-clamp adapted to be engaged around the upper portion of the globe and provided with spring-arms, a stirrup hinged to the top of the frame and engaged with said spring clamp-arms to tilt the

upper portion of the globe and raise one side of its lower edge from the globe-support, and a cross-bar carried by said spring-arms and adapted to be engaged with said stirrup to
5 hold the globe in its tilted position, substantially as described.

4. In a tubular lantern, the combination with the frame and its vertical side tubes, the globe, and the hinged globe-support having
10 an eye or loop on the side opposite the hinge, of the depending spring-catch attached to one

of the side tubes of the frame and adapted to engage said loop or eye and thereby fasten the said globe-support, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT HERMANCE.

Witnesses:

MICHAEL CLARK,

AUGUSTUS L. HERMANCE.