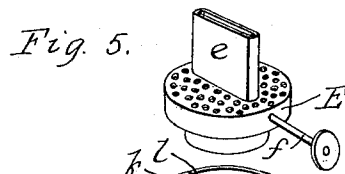
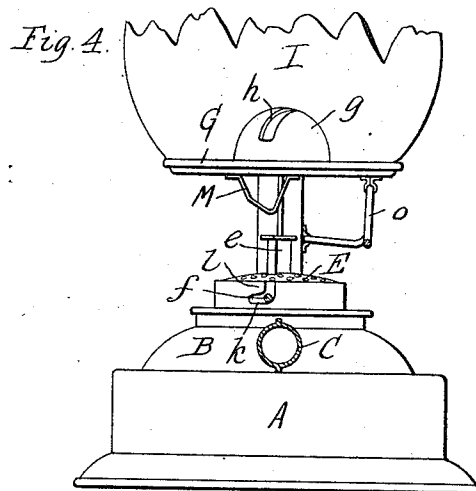
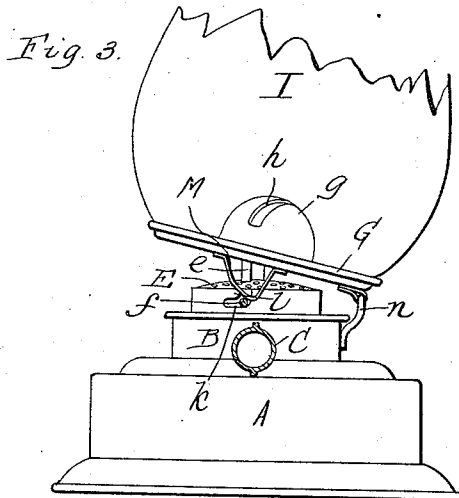
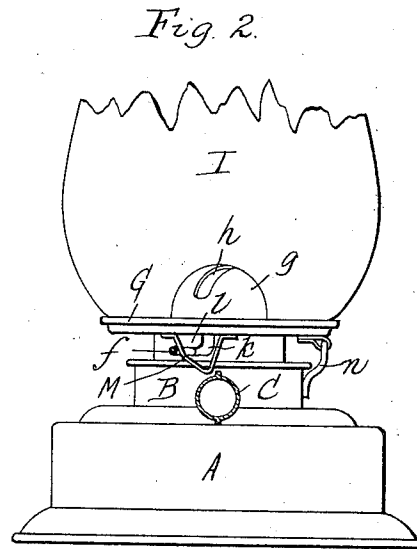
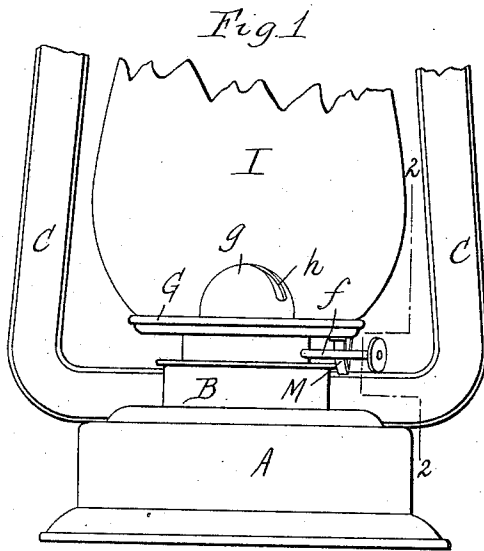


C. L. BETTS.
TUBULAR LANTERN.
APPLICATION FILED JULY 12, 1912.

1,044,855.

Patented Nov. 19, 1912.



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UNITED STATES PATENT OFFICE.

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TUBULAR LANTERN.

1,044,855.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed July 12, 1912. Serial No. 708,961.

To all whom it may concern:

Be it known that I, CHARLES L. BETTS, a citizen of the United States, residing at New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Tubular Lanterns, of which the following is a specification.

This invention relates to that class of tubular lanterns in which the globe plate is so mounted that it is movable toward and from the burner and in which the burner is locked in the air chamber by a rotary movement which causes the shaft of the wick ratchets or wheels to engage underneath an overhanging locking part of the air chamber. The mounting of the globe plate may be such that the plate is hinged and can be swung back from the burner and down upon the same, or such that the plate is guided and can be raised from the burner and lowered upon the same.

In the use of this class of burners the burner remains loose and unlocked in the air chamber if the user fails to turn the burner in the manner necessary for effecting this locking. If the user simply inserts the burner and neglects to turn and lock the same, the advantages resulting from having the burner locked in the air chamber are not secured, whereby the safety of the lantern is impaired and the wick tube does not correctly register with the slot in the burner cone when the latter is secured to the globe plate, whereby the combustion is impaired.

The object of this invention is to provide the lantern with means for automatically performing the locking movement of the burner upon moving the globe plate down upon the same for placing the plate in the proper working position.

In the accompanying drawings: Figure 1 is a front elevation of the lower portion of a tubular lantern provided with this improvement, the figure showing the globe plate hinged and the burner locked in place. Fig. 2 is a view at right angles to Fig. 1, partly in section, the section being taken on line 2—2, Fig. 1. Fig. 3 is a view similar to Fig. 2, showing the globe plate partially swung back on its hinge. Fig. 4 is a view similar to Fig. 3, but showing the globe plate guided by means of a crank shaft so that it can be raised and lowered,

the figure showing the plate raised from the burner. Fig. 5 is a detached perspective view of the burner. Fig. 6 is a detached perspective view of the upper portion of the air chamber.

Like reference characters refer to like parts in the several figures.

A represents the oil pot, B the air chamber on the same, C the tubes, E the burner, *e* the wick tube, *f* the wick raiser shaft, G the globe plate, *g* the burner cone thereon, *h* the slot in the cone, and I the globe. The air chamber is provided with undercut or elbow-shaped slots *h* for the reception of the wick raiser shaft *f* which is inserted into the slots from above in seating the burner. The latter is then turned so as to engage the shaft underneath the lip or portion *l* of the air chamber which overhangs the lower horizontal portion of the slot and by which the burner is locked to the air chamber.

M represents a cam which is arranged on the under side of the globe plate in such position that upon lowering the globe plate to its working position upon the burner, the oblique face of the cam engages the rear side of the wick raiser shaft, as represented in Fig. 3, and presses the same forwardly or toward the closed end of the horizontal portion of the slot, thereby turning the burner in its seat until it has reached the proper position, as represented in Figs. 1 and 2. In this position the cam holds the wick raiser shaft in the end portion of the slot and prevents the shaft from moving backwardly toward the open end of the slot. Upon lowering the globe plate upon the burner the cam automatically turns the burner into the locked position and in this manner insures the proper locking of the burner without requiring any attention on the part of the user, and also registers the wick tube with the slot in the burner cone as shown.

In the construction of the lantern represented in Figs. 1–3, the globe plate is hinged to a support *n* secured to the air chamber or some other suitable part of the lantern so that the plate can be swung back on its hinge, and in the construction represented in Fig. 4 the globe plate is connected with a cranked lifter shaft *o* in a well known

manner so that the plate can be raised and lowered toward and from the burner.

I claim as my invention:

1. In a tubular lantern, the combination
5 with an air chamber having a locking device, and a burner having a wick raiser shaft capable of a locking movement for engaging said shaft with said locking device, of a globe plate which is movable toward
10 and from the burner and provided with means for causing said shaft to become engaged with said locking device, substantially as set forth.

2. In a tubular lantern, the combination
15 with an air chamber having a locking slot, and a burner having a wick raiser shaft capable of rotary movement in said chamber for engaging said shaft with said slot, of a globe plate which is movable toward and
20 from the burner and provided with a cam which engages said shaft upon lowering the plate and causes the burner to be turned

to the locked position, substantially as set forth.

3. In a tubular lantern, the combination 25
with an air chamber having a locking slot, and a burner having a wick raiser shaft capable of rotary movement in said chamber for engaging said shaft with said slot, of a globe plate which is provided with a slotted
30 burner cone and movable toward and from the burner, and a cam secured to said plate and engaging said shaft upon lowering said plate, thereby turning said burner to the locked position and registering its wick tube 35
with the slot of the burner cone, substantially as set forth.

Witness my hand in the presence of two subscribing witnesses.

CHARLES L. BETTS.

Witnesses:

T. W. VAN DWYN,
R. D. BADGLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."