

No. 855,612.

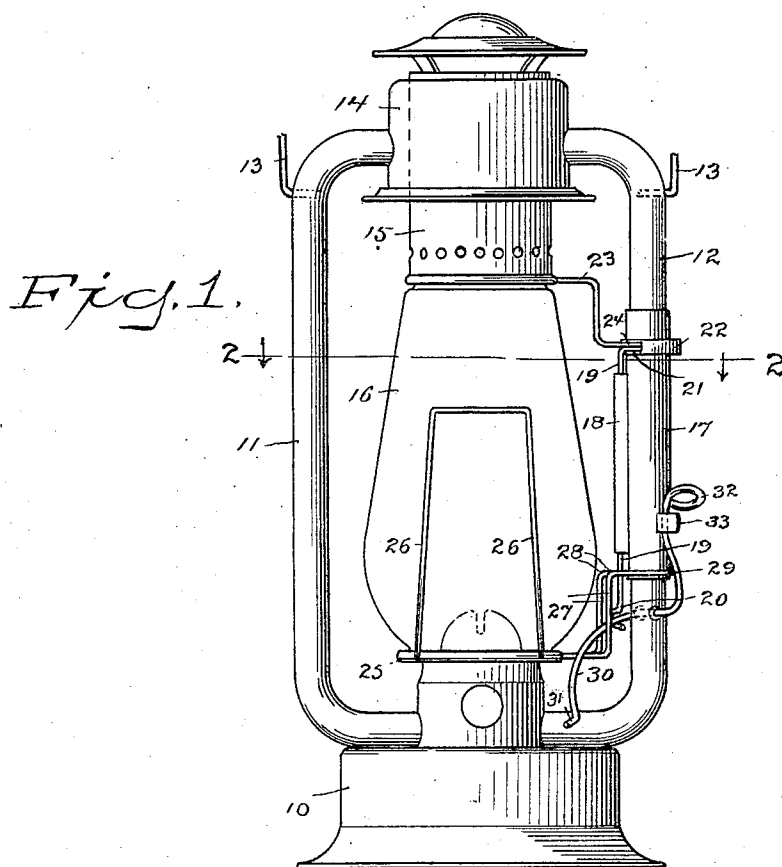
PATENTED JUNE 4, 1907.

A. T. BISHOP & J. L. McCANN.

TUBULAR LANTERN.

APPLICATION FILED OCT. 16, 1906.

2 SHEETS—SHEET 1.



WITNESSES

H. A. Lamb.
S. W. Atherton.

31
INVENTORS
Albert J. Bishop and
Joseph McKeann
BY
A. M. Wooster
ATTORNEY

No. 855,612.

PATENTED JUNE 4, 1907.

A. T. BISHOP & J. L. McCANN.

TUBULAR LANTERN.

APPLICATION FILED OCT. 16, 1906.

2 SHEETS—SHEET 2.

Fig. 3.

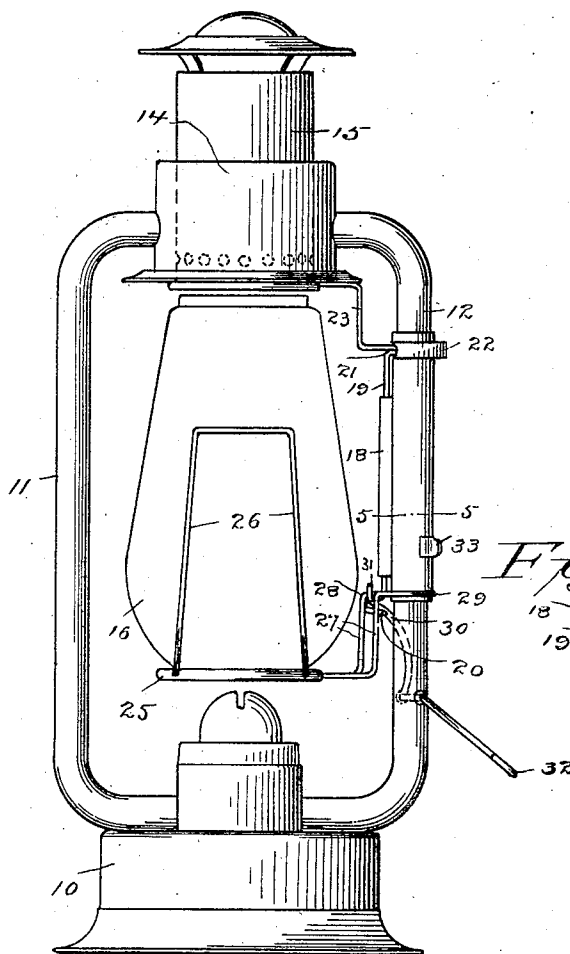


Fig. 5.

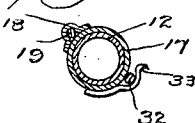
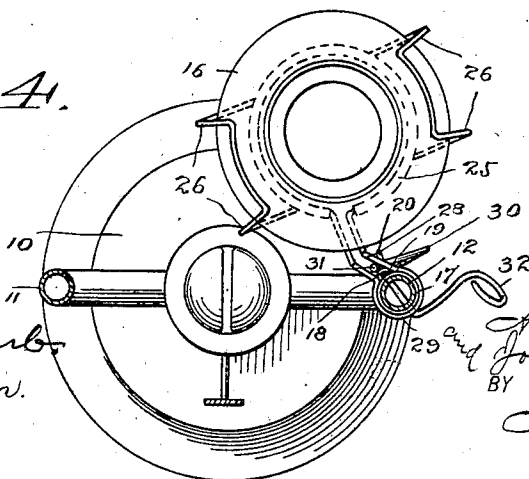


Fig. 4.



WITNESSES

H. A. Lamb
S. W. Arthurton.

INVENTORS

Albert T. Bishop
Joseph L. McCann

BY

A. M. Wooster
ATTORNEY

UNITED STATES PATENT OFFICE.

ALBERT T. BISHOP, OF SOUTHTON, AND JOSEPH L. McCANN, OF BRIDGE-
PORT, CONNECTICUT, ASSIGNORS TO THE HURWOOD MANUFACTURING
COMPANY, INCORPORATED, OF BRIDGEPORT, CONNECTICUT.

TUBULAR LANTERN.

No. 855,612.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 16, 1906. Serial No. 339,190.

To all whom it may concern:

Be it known that we, ALBERT T. BISHOP, residing at Southington, county of Hartford, and JOSEPH L. McCANN, residing at Bridgeport, county of Fairfield, State of Connecticut, citizens of the United States, have invented a new and useful Tubular Lantern, of which the following is a specification.

This invention relates to tubular lanterns, and particularly to that type of tubular lantern in which the globe is raised and swung outward to facilitate access to the burner or to enable the globe to be removed from its guard or holder.

The object of the invention is to provide an improved structure whereby the globe may be lifted and swung aside by a single continuous movement of an operating device such as a lever.

Another object of the invention is to provide a lantern having a chimney forming a continuation of the upper portion of the globe, with means whereby the operation of a single device, such as a lever, will first raise the chimney, and then raise the globe to a lesser distance than the raising movement given to the chimney, and then swing the globe outward.

To these ends, the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings, which form a part of this specification:—Figure 1 is a side elevation of a lantern embodying my improvements. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 is a view similar to Fig. 1 but showing the chimney and globe as raised and ready to be swung outward. Fig. 4 is a view similar to Fig. 2, but illustrating the globe as swung to one side. Fig. 5 represents a section on line 5—5 of Fig. 3, omitting the parts at and below the lower end of the sleeve.

Similar reference characters indicate the same or similar parts in all of the views.

From the base 10 of the lantern, the side tubes 11 and 12 extend upward in the usual manner and practically constitute portions of the frame of the lantern, portions of an ordinary bail being shown at 13. The upper ends of the tubes, 11 and 12 connect with the

dome 14, mounted within which is the chimney 15.

16 indicates an ordinary form of glass globe used in lanterns.

Mounted on the tube 12 is a sleeve 17, having secured to one side thereof a vertical guide-way 18, comprising a small tube which receives and guides the rod or wire 19, having an eye or hook 20 at its lower end. The upper end of the rod or wire 19 is formed as a ring or partial ring, surrounding the sleeve 17, and inclosed by a collar 22, which is adapted to slide on the sleeve 17, and is formed with an opening at the side toward the globe.

The arm 23 secured at its outer end to the bottom of the chimney 15, is formed at its other end with a ring or partial ring 24, lying just above the ring 21, and inclosed by the same collar 22, so that said collar serves as a coupling to connect the rings 21 and 24 although said rings are independent of each other, so that there can be a slight relative movement between said rings within said collar.

The rest 25 and the side arms 26 constitute a well known form of globe holder. The support for said globe holder comprises two wires extending laterally therefrom and then upward to form two vertical portions 27, which constitute a guide-way for the operating lever hereinafter described. From the tops of the vertical portions 27, the wire extends horizontally as at 28, so as to constitute shoulders, the purpose of which will be presently described. The loop portion 29 of the globe holder support is secured to the lower end of the sleeve 17 so that said globe holder will move vertically with the sleeve or be swung aside by said sleeve.

The operating device comprises, in the embodiment of the invention illustrated, a lever extending through the side tube 12 below the sleeve 17 and having a curved or cam portion 30 extending through the eye or hook 20 of the rod 19, and also extending between the vertical portions 27 of the globe supporting arm. The extreme end of the lever beyond the curved portion 30 terminates in a projection or hook 31, which is adapted to engage one of the shoulders 28 of the globe holder arm, at indicated in Fig. 4 and as will

be presently described. The other end of the lever is provided with a handle 32. A suitable catch 33 projects from the sleeve 17 in position to be engaged by the operating lever to normally hold it in the position shown in Fig. 1.

The operation of the device is as follows: When it is desired to change the relative position of the parts from that shown in Fig. 1 to that shown in Fig. 4, the first movement of the operating lever out of and away from the catch 33, causes the cam portion 30 running through the eye or hook 20, to raise the rod 19 and, through the coupler 22 and arm 23, to raise the chimney 15 so that its lower end will be considerably above the upper end of the globe 16. Since the hook 20 extends under the shoulder 28, as shown in Fig. 2, the latter portion of the movement just described causes the said hook to lift the globe through the medium of the globe-holder arm, until the parts assume the position shown in Fig. 3. During this upward movement the portion 30 of the operating lever extends through the guide-way formed by the vertical portions 27 in the direction illustrated in Fig. 2, so that the globe holder can not swing so long as said portion 30 of the lever is between said vertical portions 27; but when the parts have reached the position shown in Fig. 3, the lever no longer extends between the vertical portions 27, but its outer end or hook 31 engages the shoulder 28 of one of said portions 27 as shown in Figs. 3 and 4, so that the final movement of the operating lever will cause the hook 31 to swing the entire mechanism, including the sleeve 17, the rod 19, and the globe holder, and globe, around to the position shown in Fig. 4. When the parts are in this position ready access is afforded to the burner, and the globe may be removed from the side arms 26. When the parts are to be returned to their normal position, a reverse movement of the operating lever first causes the outer side of the end of hook 31 to strike the other horizontal portion or shoulder 28 and first swing the globe support over the burner. A continuing movement of the lever in the same direction permits the globe and the globe holder to descend and at the same time positively draws down the rod 19. The final movement of the lever under the catch 33 acts, through the engagement of the lower portion 30 of said lever with the lower end of rod 19, to pull down the arm 23 and positively lower the chimney and press it to its seat on the top of the globe. This movement of the lever locks the chimney securely to the globe, the lever being held by the catch with sufficient firmness to insure the parts remaining normally in the position shown in Fig. 1 until the operator desires to raise the globe.

It will now be understood that we have provided a simple and economical structure whereby a single movement of the operating lever in one direction will first place the parts of the lantern in a position to permit the globe to be swung, and then to swing said globe, while a single return movement of the lever restores all parts to their normal position and locks them there. Both operations may be very quickly effected and the movements of the connections must take place in their proper sequence so that there can be no possibility of their getting out of order.

Having now described our invention we claim:—

1. A lantern including in its construction a sleeve mounted to slide and oscillate on a portion of the frame, a vertically movable chimney, a globe holder rigidly connected with the sleeve, an operating lever, and connections whereby said lever will first raise the chimney and then raise the globe holder and then swing the latter aside.

2. A lantern including in its construction a vertically and horizontally movable globe holder and globe, a vertically movable chimney, an operating lever, and mechanism between the lever and the other movable parts whereby the movement of said lever in one direction will first raise the chimney and then raise the globe holder and swing it aside, said mechanism including devices to cause the return movement of the lever to restore the parts to normal position and lock the chimney down on the globe.

3. A lantern including in its construction a sleeve mounted to slide and oscillate on a portion of the frame, a vertically movable chimney, a globe holder rigidly connected with the sleeve, an operating lever, and mechanism between the lever and the other movable parts whereby said lever will first raise the chimney and then raise the globe holder and then swing the latter aside, said mechanism including devices to cause the return movement of the lever to restore the parts to normal position and lock the chimney down on the globe.

4. A lantern including in its construction a sleeve mounted to slide on a portion of the frame, a vertically movable chimney, a globe holder rigidly connected with the sleeve, a collar movably mounted on the sleeve, an arm extending from said collar to support the chimney, an operating lever, a rod engaged by said lever and also engaged with said collar, and means whereby the raising of the rod by the lever will raise the globe holder and globe.

5. A lantern including in its construction a sleeve mounted to slide on a portion of the frame, a vertically movable chimney, a globe holder rigidly connected with the sleeve, and

having a vertical guide-way, an operating lever extending through said guide-way, and connections for raising the chimney while the lever is moved along said guide-way.

5 6. A lantern including in its construction a sleeve mounted to slide on a portion of the frame, said sleeve having a vertical guide-way, a rod mounted in said guide-way, a vertically movable chimney, connections between said chimney and rod, a globe holder 10 rigidly connected with the sleeve and having a vertical guide-way and a shoulder, and an operating lever engaging the chimney lifting rod and extending through the guide-way of 15 the globe holder and having an end portion adapted to engage the shoulder of the globe holder to swing it aside, the said rod having

means whereby it may engage the globe holder to lift it before it is swung aside.

7. A lantern including in its construction a sleeve mounted to slide and oscillate on a portion of the frame, a vertically movable chimney, a globe holder rigidly connected with the sleeve, an operating lever, and connections between said lever and the movable 25 parts specified.

In testimony whereof we affix our signatures in presence of two witnesses.

ALBERT T. BISHOP.
JOSEPH L. McCANN.

Witnesses:

A. M. WOOSTER,
S. W. ATHERTON