

F. L. WALKER.
GLOBE LIFTER FOR LANTERNS.
APPLICATION FILED NOV. 10, 1909.

963,838.

Patented July 12, 1910.

Fig. 1.

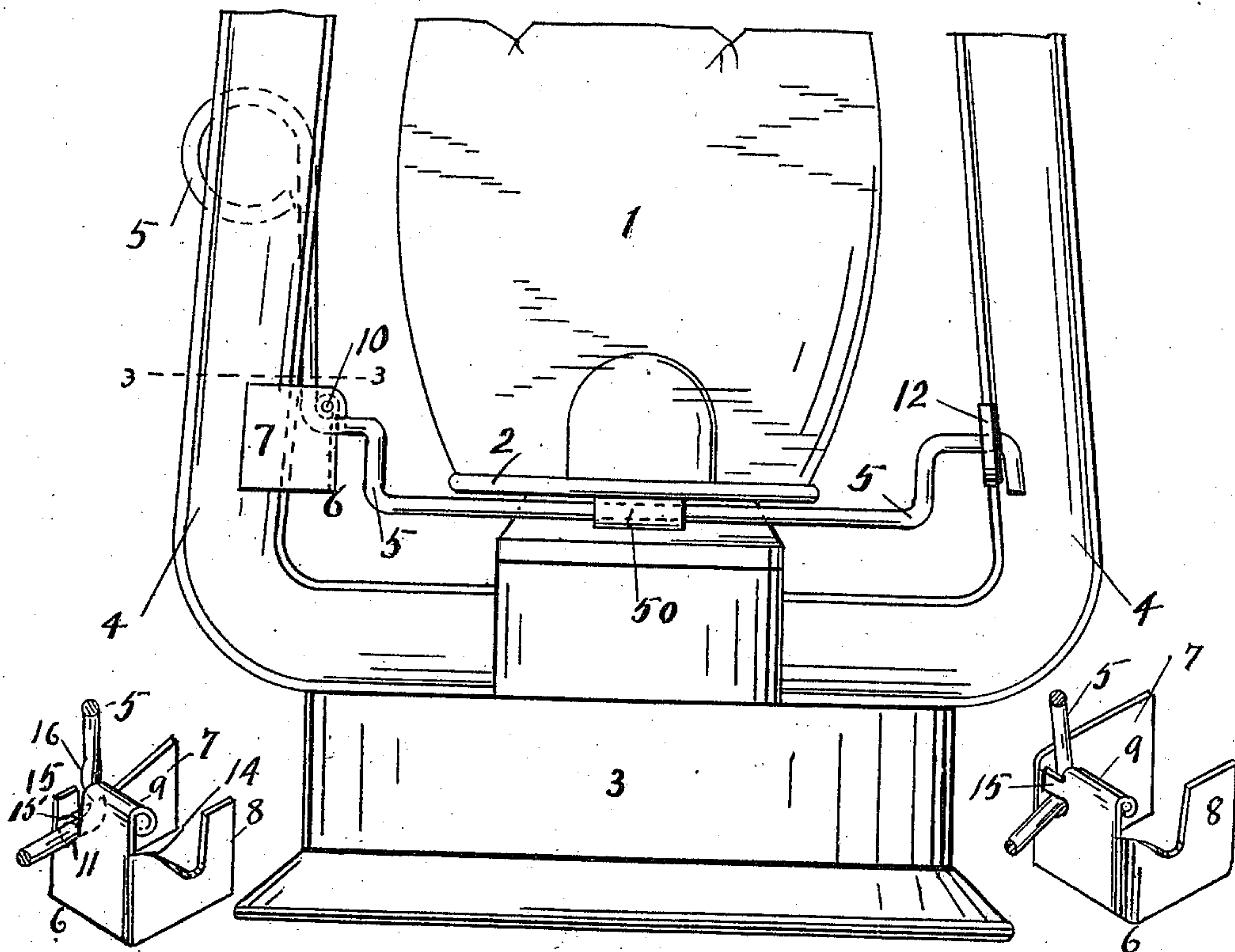
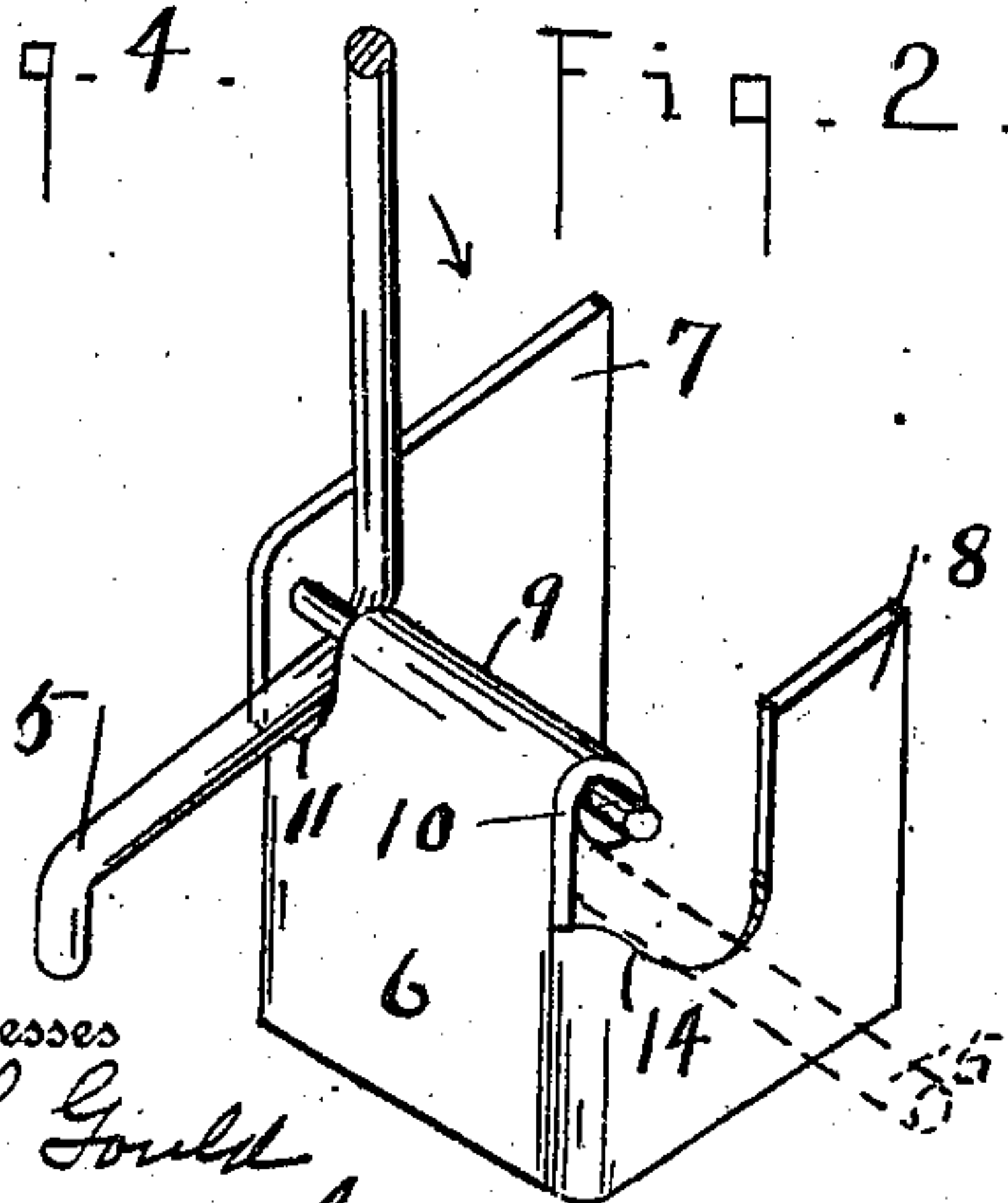


Fig. 4.

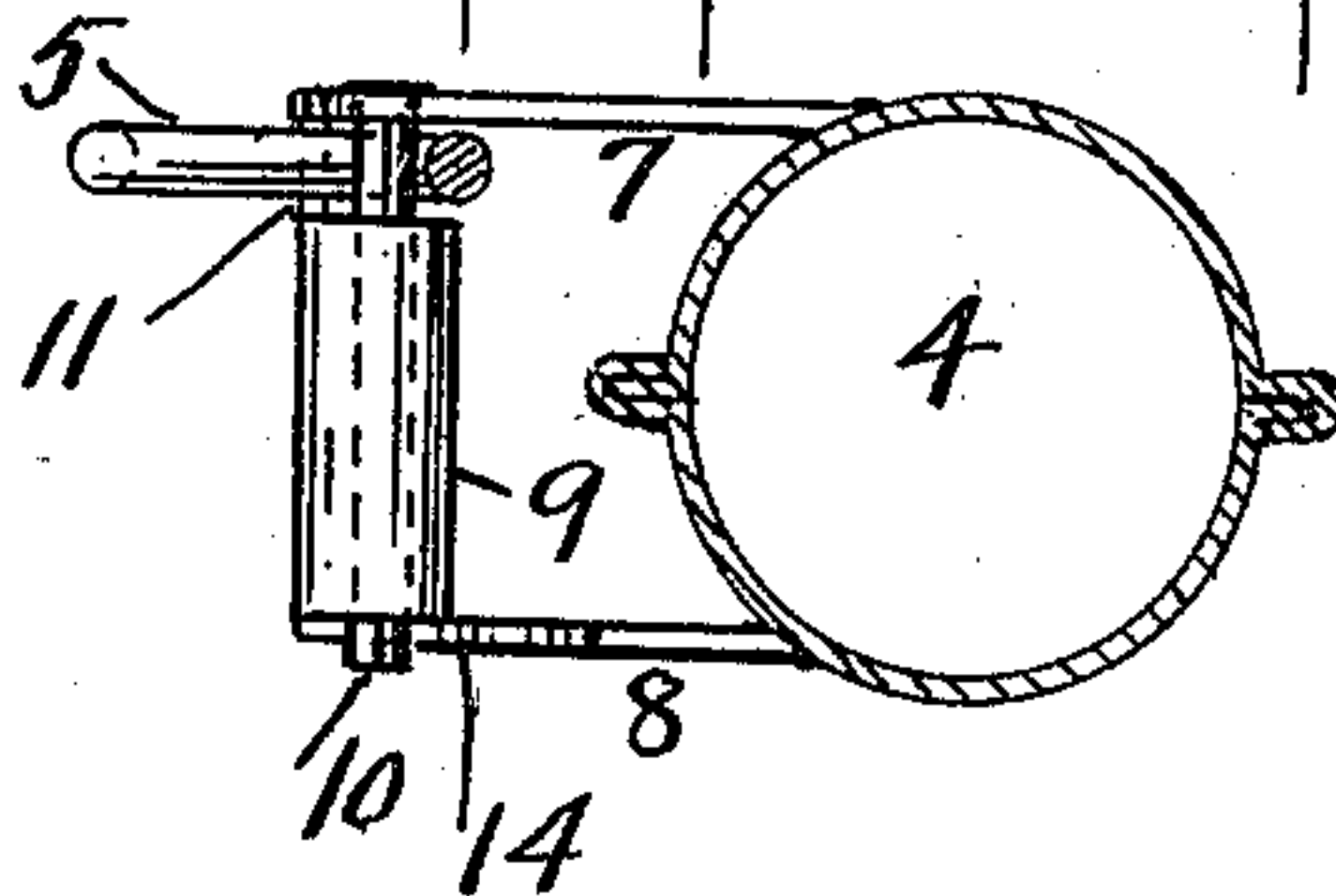


Witnesses
H. L. Gould
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Fig. 2.

Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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GLOBE-LIFTER FOR LANTERNS.

963,838.

Specification of Letters Patent. Patented July 12, 1910.

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To all whom it may concern:

Be it known that I, FREDERICK L. WALKER, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Globe-Lifters for Lanterns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to tubular lanterns and particularly to the means for raising and lowering the globe thereof.

The object of the invention is to provide a strong, efficient and easily assembled device for raising and holding the globe raised, and for releasing the same, and the invention consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawing which illustrates the invention and forms part of the specification, Figure 1 is an elevation of a lantern, a part being broken away, with the improved device thereon; Fig. 2 is a perspective view of the handle and a bearing of the lifter detached from the lantern, on a larger scale than Fig. 1, and showing the opposite side of the handle bearing from Fig. 1; Fig. 3 is a sectional view on line 3, 3 of Fig. 1; Figs. 4 and 5 show modified forms of the bearing.

In the drawing numerals 1, 2, 3 and 4 respectively denote the globe, globe plate, base and air tubes of a lantern of any usual or suitable form.

The globe lifter 5 comprises a cranked rod having bearings at its opposite ends, and operatively connected to the globe plate at 50, as usual in this general class of devices.

N numeral 6 denotes a sheet metal body of substantially channel shape, the legs 7, 8 of which are adapted to be secured to the sides of one of the air tubes, the body itself extending inwardly from the tube, and the legs spanning or nearly spanning the tube horizontally. The upper edge of said body 6 is turned inwardly toward the tube and bent around to form a sleeve 9 adapted to receive a pin 10, Figs. 1, 2 and 3, the pin also passing through a hole near the upper corner of leg 7. This sleeve is shorter than the width of the body thus leaving a notch 11 through which the handle or lifter 5 may pass horizontally below the pin 10, and leav-

ing also a space at the end of the sleeve just inside of said pin where the handle may stand upright, as shown in Figs. 2 and 3. The notch 11 and pin 10 form the bearing for the lifter at the handle end. At the opposite end the bearing is formed in a lug 12 soldered to the tube.

When the globe is down the handle stands upright, and within the space at the end of the sleeve. To raise the globe the handle is pulled (toward the observer in Fig. 2) and the cranked portion lifts the globe, which may or may not be pressed down by a spring. As the handle is thus pulled the rounded end of the sleeve nearest the handle wedges the lifter toward the proximate tube, its connection with the globe plate and with the opposite bearing being sufficiently yielding to permit such movement, and as movement of the handle downward continues it passes easily over the rounded side of the sleeve, and springs under the sleeve and is there held by the under side of said sleeve.

As most clearly shown in Fig. 2 the leg 8 is cut away below the sleeve, and inclines downwardly toward the tube as indicated at 14. When it is desired to lower the globe the handle is depressed with a slight pressure toward the tube (if required) and the incline 14 will wedge the handle toward the tube so that it passes out from under the sleeve, and the handle will turn up and the globe descend.

The bearing of the handle on the rounded surface of the sleeve both while moving down to locking position and while being held is of considerable extent, and of correct form for high efficiency.

In practice the body 6 is secured to the air tube before the latter is assembled in the lantern, but without the pin 10 being secured therein. When the parts of the lantern are put together the lifter is inserted in bearing 12 at one end, and dropped into the notch 11 at the other end. The pin 10 is then inserted and secured by riveting or otherwise, thus closing the top of the notch and completing the bearing.

As modified constructions the body 6 may be formed with the inturned sleeve or roll and open notch 11, and with a lug 15 integral with the body. Said lug may be formed on the outer side of the notch as indicated in Fig. 4, or on the opposite side as in Fig. 5, such lug to be bent into operat-

ing position only after the lifter is in the notch, as described in connection with the pin 10. By use of the lug a separate pin or part is dispensed with.

5 In Fig. 4 the lug is shown substantially as wide as the diameter of roll 9 and its wide dimension folds over the wire 5, as at 15', which prevents the upright part of wire 5
10 roll as in the other forms, hence it is preferred in this case to bend wire 5 outward a little as indicated at 16, so that when the handle is pulled down the lifter will be wedged by said bend acting on the roll 9
15 toward the air tube, and will then spring under the roll and be held thereby.

The notch-closing and lifter-holding lug 15 of Fig. 5 is shown after being bent into operating position. When the body is made
20 and when it is soldered to its air tube said lug, it will be understood, stands out in a plane parallel with side 7.

Evidently the utility of the open notch and the closing and holding means is not
25 dependent entirely on the use of the sleeve 9, and would be useful, for example, in connection with an inturned flange such as shown in my application 527,260 filed November 10, 1909.

30 Having thus described the invention what I claim is,—

1. The combination in a lantern having a globe, of air tubes, a cranked globe-lifter, and a bearing for an end of the lifter comprising a body secured to one of said tubes,
35 and having means for holding the lifter rotatably therein, and said body having also a lifter-holding sleeve extending transversely to a plane including the axes of said
40 tubes and under which sleeve the lifter can move to hold the globe in raised position.

2. The combination in a lantern having a globe, of an air tube, a cranked globe lifter, and a bearing for an end of the lifter comprising a body with legs or sides secured to
45 the air tube, said body having means for holding the lifter rotatably therein, and having also a lifter holding sleeve extending crosswise between said legs.

50 3. The combination with the globe, globe

lifter and air tube, of a bearing for an end of the lifter comprising a body secured to the air tube and having a lifter-receiving notch adapted to receive the lifter after the body is secured to the tube, and means for
55 closing such notch to hold the lifter in place therein.

4. The combination with a lantern globe, globe-lifter, and air tube, of a bearing for an end of the lifter comprising a body secured
60 to the air tube and having a lifter-receiving notch at a distance from the tube, means for closing said notch to hold the lifter in place, and a part extending toward the air tube from said notch, under which part the lifter
65 when moved to raise the globe is held.

5. The combination with a lantern globe lifter, of a bearing for an end thereof comprising a channel shape body having a notch for the lifter, an inturned part for holding
70 the operated lifter, and a lug forming part of said body for closing said notch to hold the lifter therein.

6. The combination in a tubular lantern, with a cranked lantern-globe-lifter, of a
75 support for an end thereof comprising a single body secured to a tube of the lantern, a lifter bearing therein at a distance at one side of said tube, said body having also between said bearing and said tube a lifter-
80 holding part projecting toward the side tube and under which the lifter can pass when the globe is raised.

7. The combination in a tubular lantern, with a cranked globe-lifter, of a support for
85 an end thereof comprising a single body secured to a tube of the lantern, having a lifter-bearing therein, and having also between said bearing and tube a lifter-holding part curving toward and then from said tube
90 over and under which the lifter can pass when the globe is raised.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRED. LORNE WALKER.

Witnesses:

W. H. CHAMBERLAIN,

W. C. EMBURY.