(No Model.)

# F. K. WRIGHT.

## TUBULAR LANTERN.

No. 498,045. Patented May 23, 1893.

Fig. 1.

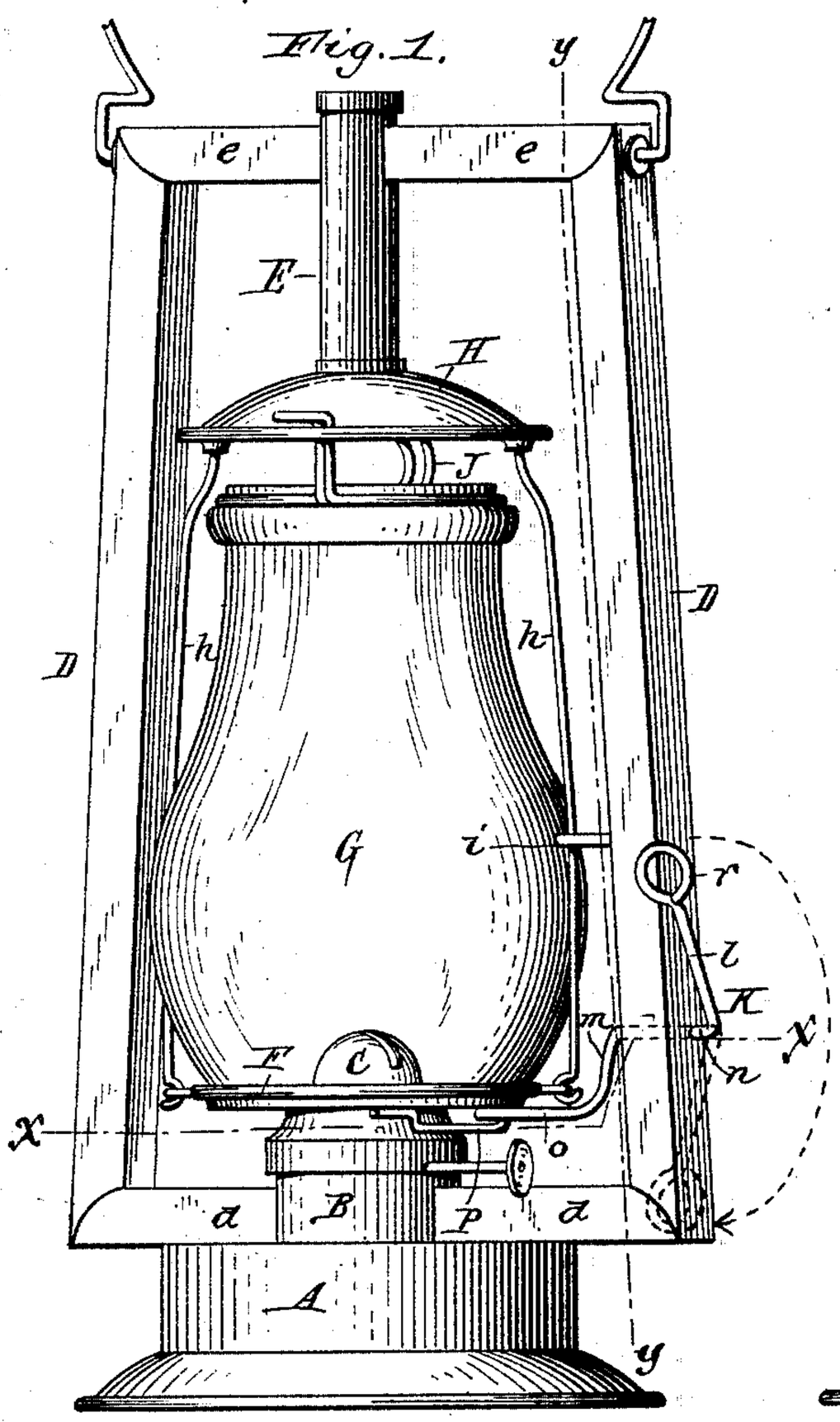


Fig. 2.

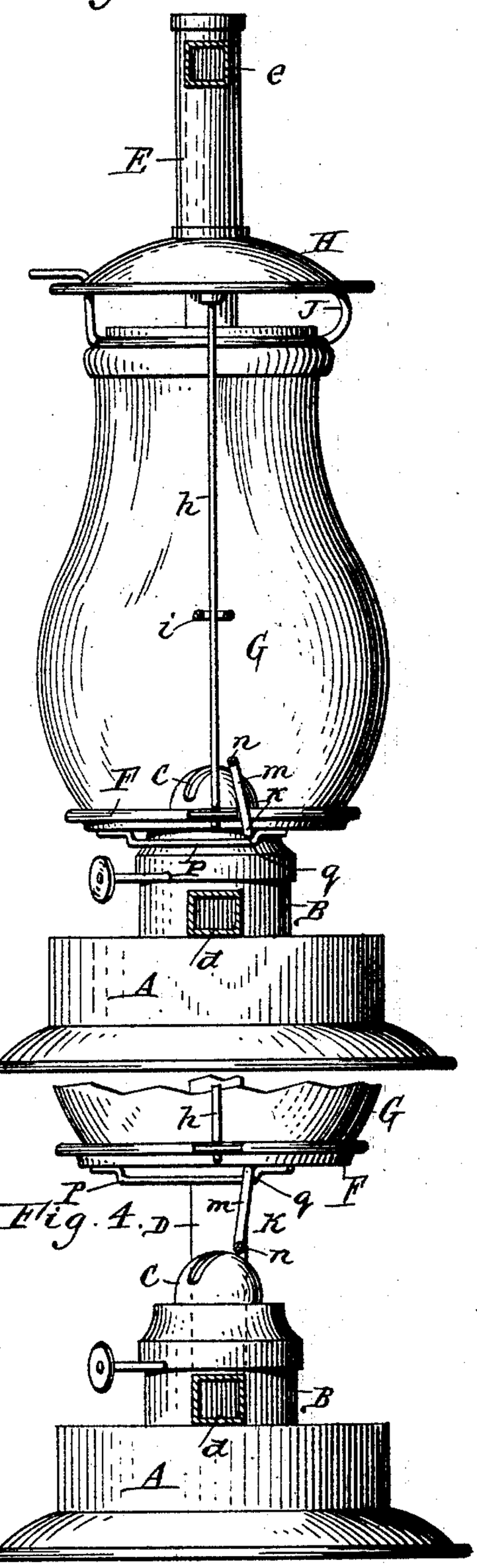


Fig. 3.

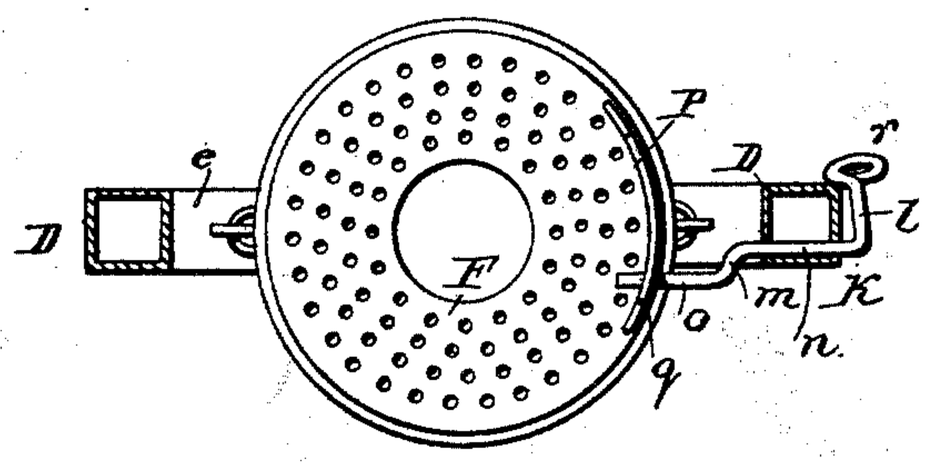


Fig. 4.




Witnesses:
Theo. L. Popp.
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# UNITED STATES PATENT OFFICE.

FREDERICK K. WRIGHT, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE STEAM GAUGE AND LANTERN COMPANY, OF SAME PLACE, AND THE R. E. DIETZ COMPANY, OF NEW YORK, N. Y.

## TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 498,045, dated May 23, 1893.

Application filed December 2, 1891. Serial No. 413,771. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK K. WRIGHT, a citizen of the United States, residing at Syracuse, in the county of Onondaga 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 a tubular lantern in which the globe is mounted in a frame which can be moved vertically in the tubular lantern frame for the purpose of exposing the burner for trimming and lighting the wick, &c.

The object of my invention is to provide a simple device whereby the globe frame can be easily raised and lowered and held in either position.

In the accompanying drawings: Figure 1 is an oblique front elevation of a tubular lantern provided with my improvements showing the globe frame in its lowered position. Fig. 2 is a vertical section in line *y—y* Fig. 1. Fig. 3 is a horizontal section in line *x—x* Fig. 1, looking upwardly. Fig. 4 is a fragmentary vertical section of the lower portion of the lantern showing the globe frame raised.

Like letters of reference refer to like parts in the several figures.

A represents the oil pot of the lantern, B the air-chamber, C the burner, D the upright portions of the air tubes, *d d* the lower and *e e* the upper horizontal branches thereof and E the central depending tube, forming together the rigid tubular lantern frame.

F represents the perforated plate which surrounds the burner and upon which the globe G rests.

H represents the bell arranged above the globe and made vertically movable on the depending tube. The bell and globe supporting plate are connected by upright wires *h h* which pass through guide loops *i i* secured to the upright portions of the tubes. The globe is firmly held upon the supporting plate F by a spring J secured to the bell. The perforated plate, the bell and the upright wires form the vertically movable frame in which the globe is mounted. All of these parts may be of any ordinary or suitable construction.

K represents a lever whereby the globe frame is raised and lowered. This lever consists essentially of an outer arm *l* and an inner arm *m* arranged respectively on the outer and inner sides of one of the side tubes and connected by a horizontal wrist *n*. The wrist of the lever is arranged radially or nearly so with reference to the globe and journaled in openings formed in one of the side tubes so that the arms of the lever swing backwardly and forwardly in the lantern frame. The inner arm of the lever is provided with an inwardly projecting finger *o* which bears against the under side of the globe supporting plate.

P represents a loop which is secured longitudinally to the under side of the globe supporting plate and which guides and confines the finger *o* of the elbow lever. This loop extends a short distance rearwardly beyond the wrist of the lever and its rear end *q* forms a stop which limits the rearward movement of the finger. The loop extends forwardly a sufficient distance to allow the finger to swing freely from its highest to its lowest position. The outer or free arm of the lever is preferably provided with a thumb piece *r* for manipulating the same.

When the globe and its frame are in their normal, lowered position the outer arm of the lever extends upwardly and the inner arm extends downwardly and slightly rearwardly and bears against the rear end of the loop, as represented in Figs. 1, 2, and 3. The rear end of the loop prevents further rearward movement of the inner arm and so resists any upper pressure which may be applied to the globe frame and thereby securely holds the latter upon the burner. When it is desired to raise the globe frame the outer arm of the lever is swung rearwardly and downwardly, as indicated by the dotted arrow in Fig. 1 until the inner arm extends upwardly and rearwardly and its finger again rests against the rear end of the loop, as represented in Fig. 4. The weight of the globe and its frame holds the finger against the rear end of the loop, thereby preventing the finger from being swung forwardly by accident and holding the globe frame securely in an elevated position.

The guides which control the up and down movement of the globe frame prevent the

lower end of the globe frame from moving back and forth with the finger of the lifting lever and cause the swinging movement of the latter to produce only an up and down movement of the globe frame. By this arrangement of the loop on the supporting plate with reference to the finger of the lever an extremely simple and a perfectly reliable lock is formed whereby the globe frame is securely held either in a raised or lowered position.

I claim as my invention—

The combination with the tubular lantern frame and the vertically movable globe frame guided in said lantern frame, of a lifting and locking lever journaled transversely in the tubular lantern frame to swing backwardly and forwardly, and a loop secured longitudinally to the under side of the globe frame and having one end extending slightly beyond the fulcrum of the lifting lever on one side thereof to form a stop for the same in its highest and lowest positions and being of sufficient length to permit the lifting lever to swing from its highest position to its lowest position on the opposite side of its fulcrum, substantially as set forth.

Witness my hand this 28th day of November, 1891.

FREDERICK K. WRIGHT.

Witnesses:
ROBT. W. GOERS,
P. L. SALMON.