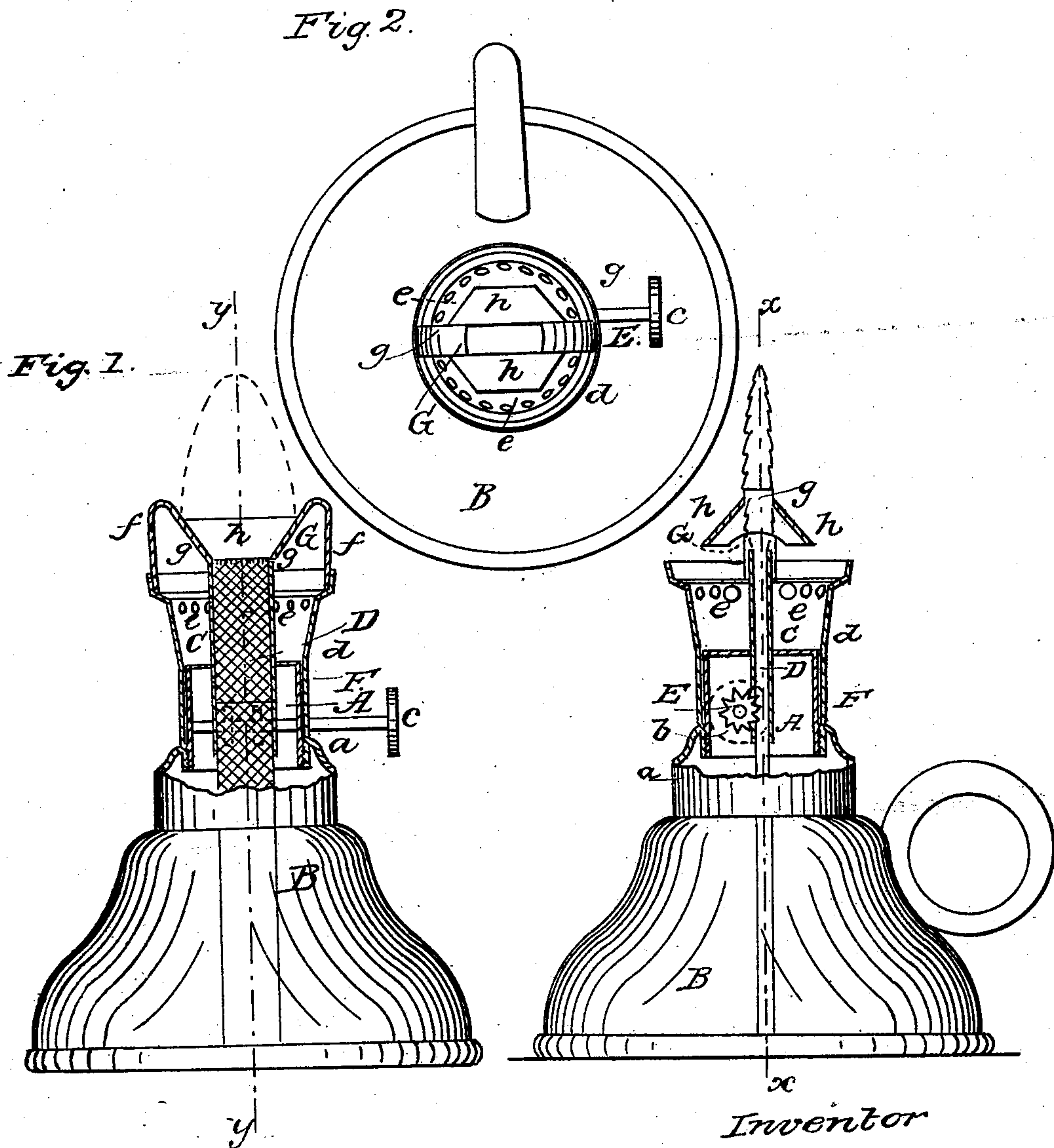


W. PAINTER.

Lamp Burner.

No. 39,102.

Patented June 30, 1863.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM PAINTER, OF FALLSTON, ASSIGNOR TO CHARLES PAINTER,
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IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 39,102, dated June 30, 1863.

To all whom it may concern:

Be it known that I, WILLIAM PAINTER, of Fallston, in the county of Harford and State of Maryland, have invented a new and Improved Burner for Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *xx*, Fig. 3; Fig. 2, a plan or top view of the same; Fig. 3, a vertical section of the same, taken in the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved lamp-burner for burning coal-oil without the aid of the usual draft chimney.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a metal tube, which is closed at its upper end and provided with a screw on its lower end to screw into a socket, *a*, on the top of the fountain or body B of the lamp. C is the wick-tube, which is secured vertically and centrally in tube A, and extends downward to a level with the bottom of tube A and projects some distance above it. The wick-tube C is of the usual flat form, and the wick D is raised and lowered by serrated wheels *b*, which are fitted on a shaft, E, as usual. The wheels *b* are within the tube A, the shaft E extending through the side of the same, and provided at its outer end with a small thumb wheel, *c*. By this arrangement it will be seen that no odor or vapor can escape from the fountain B of the lamp through the holes in the wick-tube in which the wheels *b b* are fitted, as said holes are tightly inclosed by the tube A. In the ordinary burners vapor and odor can escape in this way, and those burners which are designed to be used without chimneys are rendered very objectionable from this cause. On the tube A there is fitted a sliding tube, F, which extends considerably above the tube A, and has its upper part, *d*, of flaring or inverted conical form, as shown clearly in Figs. 1 and 3. This part *d* of the tube F is perforated, as shown at *e*, and to the upper end of said part *d* of the tube F there are attached at two opposite points the ends of a metal plate or

spreader, G, which is of peculiar form—to wit, the ends of said plate G have a vertical position, as shown at *ff*, and are then bent downward at an angle of about forty-five degrees, as shown at *gg*, the parts *g* gradually widening from their upper to their lower ends, as shown clearly in Fig. 3. These parts *g g* are connected by two side pieces, *h h*, which incline outward from their upper to their lower ends, as shown in Fig. 3, and extend downward as far as the parts *g g*.

From this description it will be seen that the parts *g g* form the end pieces of the attachment composed of the plate G, and that they have a reverse inclined position to the side pieces, *h h*. This attachment is at the upper end of the wick-tube C, or just above it, and the space between the upper edges of the side pieces, *h h*, is considerably wider than the wick-tube. The end pieces, *g g*, of the attachment cause the flame to widen or expand, while the side pieces, *h h*, serve to steady the flame, preventing it from being extinguished by a sudden upward or downward movement of the lamp, and said side pieces also serve to direct air to the base of the flame, and thereby insure perfect combustion. The air, it will be seen, is admitted into the part *d* of the slide F below the attachment through the perforations *e*, and said attachment may be raised or lowered in order to have a proper relative position with the flame by raising or lowering the tube F on the tube A, and tube F may be entirely removed from A to afford facilities for turning the wick and clearing the several parts of the burner.

I do not claim, broadly, the application of flame-spreaders to wick-tubes of lamps; but,

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. Having the side pieces, *h h*, and the ends *g g* constructed and arranged in reverse inclined positions, in the manner herein shown and described.

2. The combination of the attachment above specified with the tubes F A, the latter being screwed into the fountain or body B of the lamp and inclosing the wick-adjusting wheels *b*, as set forth.

WILLIAM PAINTER.

Witnesses:

E. PAINTER,

SAMUEL B. WALTON.