

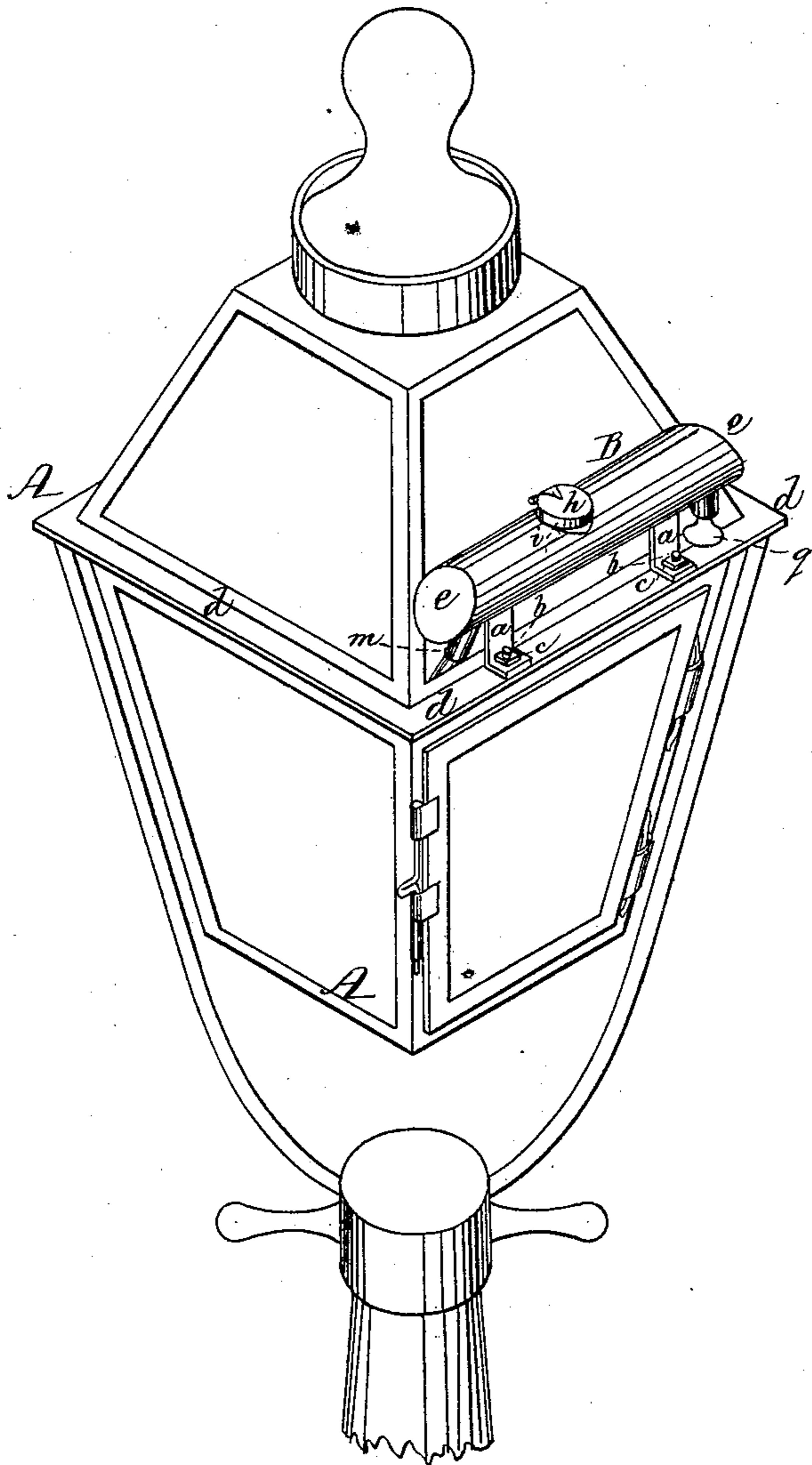
F. A. BROWN & A. H. WATKINS.

Vapor-Burner for Lanterns.

No. 163,634.

Patented May 25, 1875.

*Fig. 1*



Witnesses,  
W. J. Cambridge  
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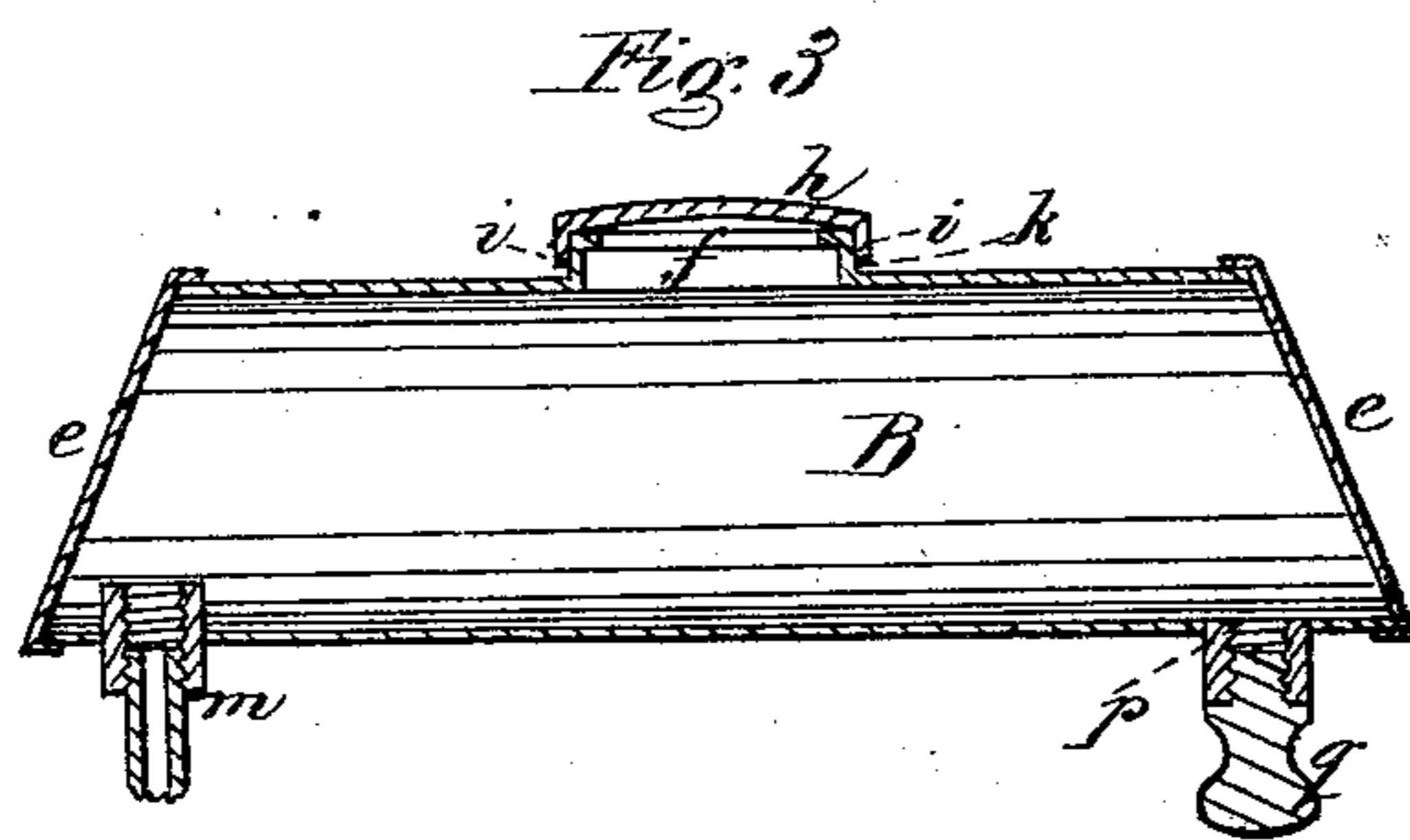
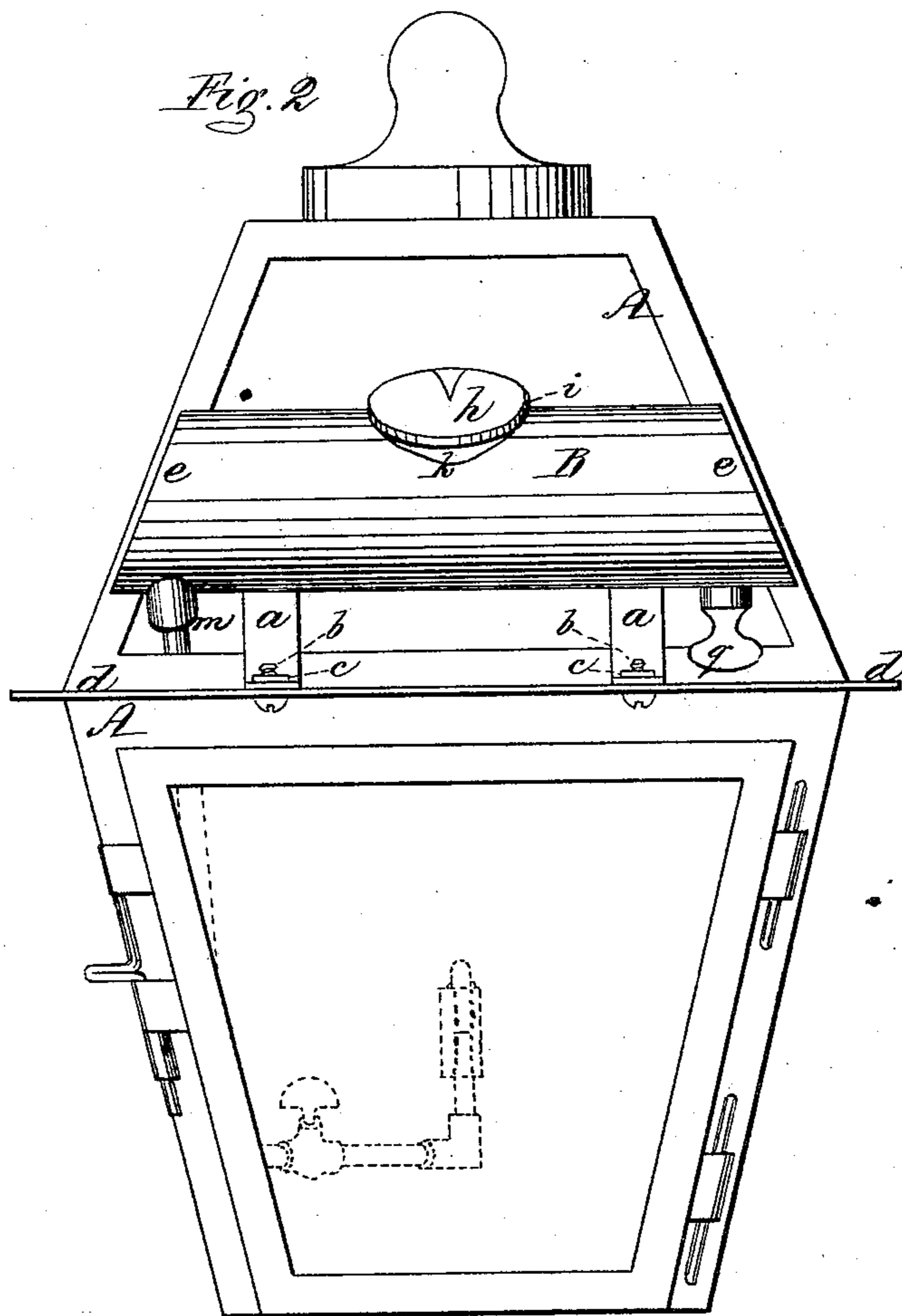
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# UNITED STATES PATENT OFFICE.

FREDERICK A. BROWN AND ALBERT H. WATKINS, OF BOSTON, MASS.

## IMPROVEMENT IN VAPOR-BURNERS FOR LANTERNS.

Specification forming part of Letters Patent No. **163,634**, dated May 25, 1875; application filed May 6, 1875.

*To all whom it may concern:*

Be it known that we, FREDERICK A. BROWN and ALBERT H. WATKINS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Reservoirs for Vapor-Burners for Lanterns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our improved reservoir applied to a street-lantern. Fig. 2 is a front elevation of the same. Fig. 3 is a longitudinal vertical section through the reservoir.

Our invention consists in a reservoir for vapor-burners, having its ends beveled or chamfered off to correspond to the form of the upper portion of the lantern, across one side of which it extends, and to which it is attached by legs or supports secured to the lantern-frame by screws and nuts, or otherwise, the opening through which the fluid is supplied being provided with a hinged cap or cover, having a flange around its outer edge to exclude rain and dust, by which construction the rays of the light are not obstructed to such a degree as is the case where the reservoir extends entirely around the lantern, as heretofore, while the reservoir may be secured in place and removed without taking down the lantern, as is necessary where it is soldered thereto, as has hitherto been the case. My invention also consists in a reservoir for vapor-burners having the upper end of the feed-pipe extending above its bottom, so that any water or impurities which may be deposited will be retained within the reservoir and prevented from passing down the feed-pipe to the burner, which would cause the light to be extinguished or its volume reduced, the reservoir being emptied of the water, &c., through an outlet controlled by a screw-plug or other device.

To enable others skilled in the art to understand and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A represents the frame

of a street-lantern, and B a reservoir for containing naphtha or other light hydrocarbon oil. This reservoir extends across one side only of the lantern, and is provided with legs or supports *a a*, the lower bent ends of which are secured by screws and nuts *b c* to one side of the flange or collar *d* of the lantern-frame; this construction admitting of the reservoir being readily applied and detached without the necessity of taking down the lantern, as was necessary when soldered thereto, as heretofore. By placing the reservoir B on one side only of the lantern, the rays of light are not obstructed to such an extent as is the case where the reservoir is made to extend entirely around the lantern, as heretofore. The opposite ends *e e* of the reservoir B are beveled or chamfered off so as to correspond to the inclination of the upper portion of the lantern-frame, and thus present a neat and symmetrical appearance. At or near the center of the top of the reservoir is an opening, *f*, provided with a hinged cap or cover, *h*, having a flange, *i*, around its outer edge, which fits over a flange, *k*, projecting up around the outside of the opening *f*, and serves to exclude rain and dust. *m* is the feed-pipe, which leads from the reservoir to the burner, (shown dotted.) The upper end of this pipe *m* extends above the bottom of the reservoir, as seen in Fig. 3, by which construction a trap is formed, so that any water or impurities which may, on account of their greater specific gravity, settle at the bottom of the reservoir, will be prevented from entering the feed-tube and passing down to the burner, which would extinguish or reduce the light. At the bottom of the reservoir is an opening, *p*, which is closed by a screw-plug, *q*, by removing which the water or impurities which have collected in the trap may be readily drawn off.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A reservoir, B, for vapor-burners, beveled or chamfered off at its ends to correspond to the form of the upper portion of the lantern-frame A, in combination with the legs or supports *a a*, and provided with a supply-open-

ing having a hinged cap or cover, *h*, constructed and applied substantially in the manner and for the purpose set forth.

2. A reservoir for vapor-burners, having the feed-pipe *m* extending above the level of its bottom to form a trap, and provided with a discharge-outlet, through which water or impurities may be drawn off, substantially as described.

Witness our hands this 4th day of May, A. D. 1875.

FREDERICK A. BROWN.  
ALBERT H. WATKINS.

In presence of—

P. E. TESCHEMACHER,  
W. J. CAMBRIDGE.