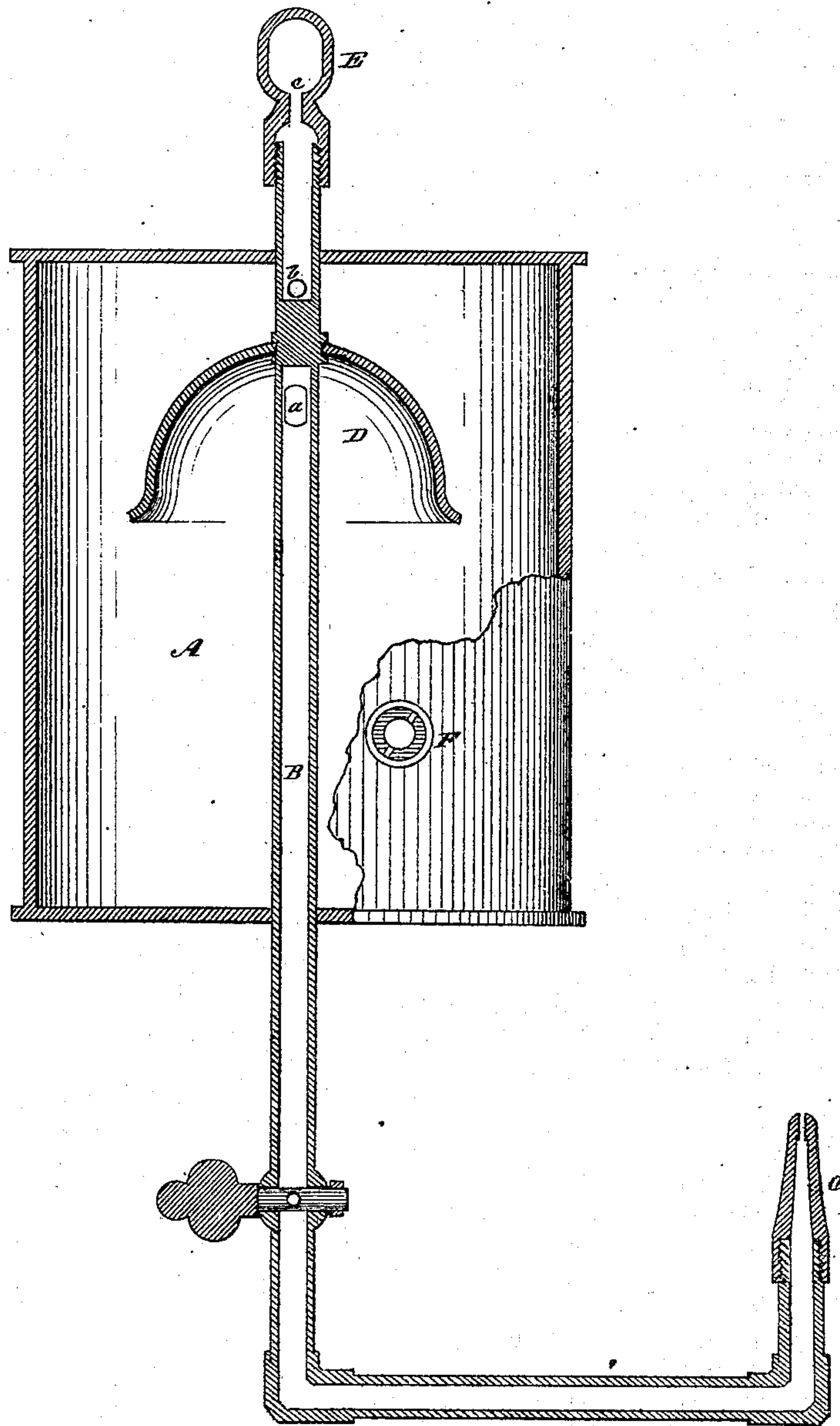


*Joshua Gray's
Improved Gas Lamp.*

No. 120,058.

Patented Oct. 17, 1871.



Witnesses.
Wm. Thornton
Wm. Venable

Inventor.
Joshua Gray

UNITED STATES PATENT OFFICE.

JOSHUA GRAY, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-LAMPS.

Specification forming part of Letters Patent No. 120,058, dated October 17, 1871.

To all whom it may concern:

Be it known that I, JOSHUA GRAY, of the city of New York, in the county of New York and State of New York, have invented a new and Improved Gas-Lamp; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing forming a part of this specification and to the letters of reference marked thereon.

My invention relates to certain improvements in gas-lamps for generating and burning the vapors or gases of any of the hydrocarbons; and its object is to construct a lamp in such a manner that it shall be simple and cheap in its construction, easily managed, and not liable to get out of order; and at the same time shall be efficient in its operation and free from danger of exploding. This invention consists of a perforated cap, in combination with a reservoir, feed-tube, and bell-shaped cover, for the purpose of allowing the free admission of atmospheric air into the reservoir, and at the same time preventing the entrance of the oil into the pipe leading to the burner when filling the reservoir.

To enable others skilled in the art to make and use my invention, I will proceed more particularly to describe its construction and operation.

The figure represents a sectional elevation of my improved gas-lamp.

A is the oil-chamber or reservoir in which the gas is generated, which may be made of any suitable metal and of convenient dimensions. B is a pipe, which passes vertically through the said reservoir, and extends beyond the upper and lower ends of the latter. The gas is admitted into this pipe by means of a perforation, *a*, provided therein, and passes through the lower portion of the same to the burner C. Immediately above the perforation *a* the pipe B is closed, and a funnel or bell-shaped cover or bonnet, D, is secured thereto, which may be made of any suitable material, and of such dimensions that its lower edge will extend to within a short distance of the inner surface of the reservoir A, and which is for the purpose of preventing the oil entering the perforation *a* in the pipe when the reservoir

is being filled. The upper end of the pipe B is open, and on that portion of the same which passes within the reservoir, and immediately under the top of the latter, are provided one or more perforations, *b*, for the purpose of admitting air into the oil-chamber and also for filling in the oil. On the extreme upper end of the pipe B, which extends outside of the top of the reservoir, is provided a screw-thread, upon which fits a cap, E, provided with a corresponding screw-thread. A perforation, *c*, passes through this cap E, connecting with the bore of the pipe B, through which the air is admitted into the pipe B, and from thence, through the perforation *b*, into the reservoir, where it mingles with the vapor from the oil and passes through the perforation *a* to the burner. The upper portion of the cap E may be provided with a loop, *d*, for suspending the lamp. When the reservoir is to be supplied with oil this cap E is removed and the oil poured in at the top of the pipe B, from whence it passes through the perforations *b* into the reservoir and falls upon the bonnet D, which latter prevents it from entering the perforation *a*. F is a transparent disk, inserted in any suitable manner in the side of the reservoir, which is for the purpose of enabling the person who is filling the lamp to see the surface of the oil and ascertain when a sufficient quantity has been poured in.

It will be seen that a lamp constructed as above described may be manufactured at a small cost, and at the same time it is easily managed, and is efficient in its operation and not liable to explode.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The cap E, provided with a perforation, *c*, in combination with the reservoir A, bonnet D, pipe B, and perforations *a b*, substantially as herein shown and described and for the purposes set forth.

JOSHUA GRAY.

Witnesses:

JOHN S. THORNTON,
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