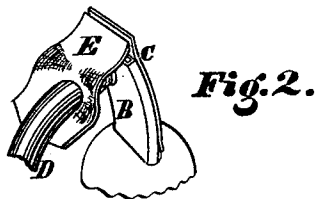
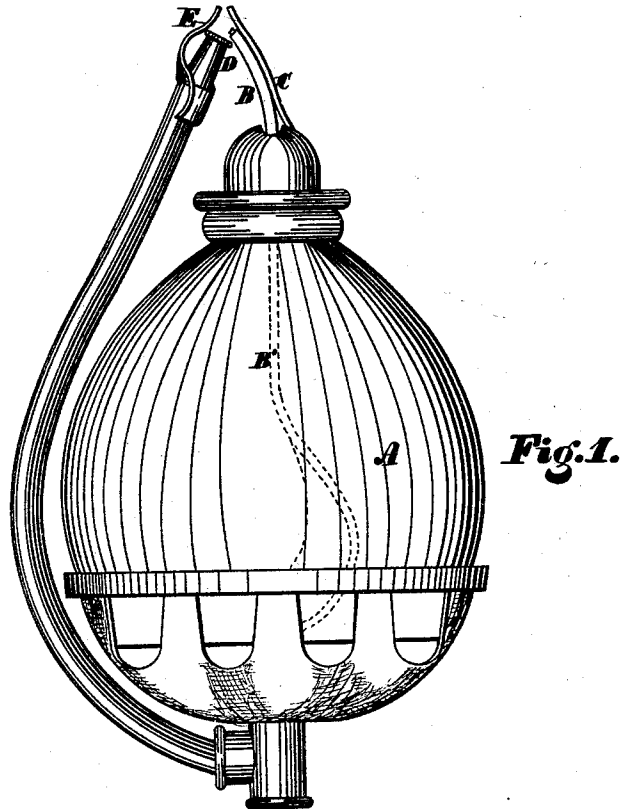


C. E. BALL.
LAMP.

No. 171,081.

Patented Dec. 14, 1875.



Witnesses

Saml. J. Van Stavern

J. B. Rosenolly

By

Chas. E. Ball,

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Inventor

UNITED STATES PATENT OFFICE.

CHARLES E. BALL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO C. S. BRADFORD, JR.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 171,081, dated December 14, 1875; application filed November 16, 1875.

To all whom it may concern:

Be it known that I, CHARLES E. BALL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Lamps; 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 it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a perspective, partly broken away.

The object of my invention is to provide a gas-lamp, or lamp in which the light is produced by the burning of hydrocarbon oil on a wick with coal-gas, so constructed that there will be a perfect union of the gas and hydrocarbon vapor at the point of combustion, and a perfectly straight and upright flame.

In carrying my invention into effect I take a lamp provided with a flat-wick burner. I then secure in any suitable manner a gas-burner, so arranged that it will emit its current over the top of the wick, the top of the wick-burner and that of the gas-burner being at or about the same level, both burners inclining toward each other, so that if continued they would meet or intersect.

To each burner is attached a curved shield or deflector, the purpose and effect of which is to cause the gas-current to be held directly over the wick until wholly consumed at the point of combustion, and to cause the flame to rise straight up and maintain constantly a true vertical position.

Referring to the accompanying drawing, A shows a hydrocarbon-fluid lamp, having a wick-burner, B, curved or bent in the manner

shown, and furnished with a plate or shield, C, forming a deflector. D is a gas-burner, arranged substantially as shown, inclining toward the burner B, the upper edges of each of said burners being at or about the same level.

To the burner D is attached a plate or shield, E, similar to C. These plates C and E incline toward each other above the burners until they nearly meet, when they trend upward, forming vertical walls about one-sixteenth of an inch apart, between which the combined flame of vapor and gas ascends in a perfectly true and straight line. B' indicates the wick.

Where a horizontal or inclined flame is desired, the shield on the wick-burner may be taken off or bent back, so as to cause its vertical wall to lean in the wished-for direction, the vertical wall of the remaining shield being also similarly bent or inclined. This modification I consider within the terms of my invention.

What I claim is—

The deflector for a gas-lamp, composed of the inclined plates C and E, attached to the wick-burner and gas-burner respectively, and terminating at their upper extremities in vertical walls to produce a more perfect union of gas and vapors at the point of combustion, and cause the flame to ascend in a straight line without veering to either side, substantially as shown and set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of November, 1875.

CHAS. E. BALL.

Witnesses:

M. DANL. CONNOLLY,
CHAS. F. VAN HORN.