

J. H. GUEST.
Electric-Lamp.

No. 225,594.

Patented Mar. 16, 1880.

Fig. 1.

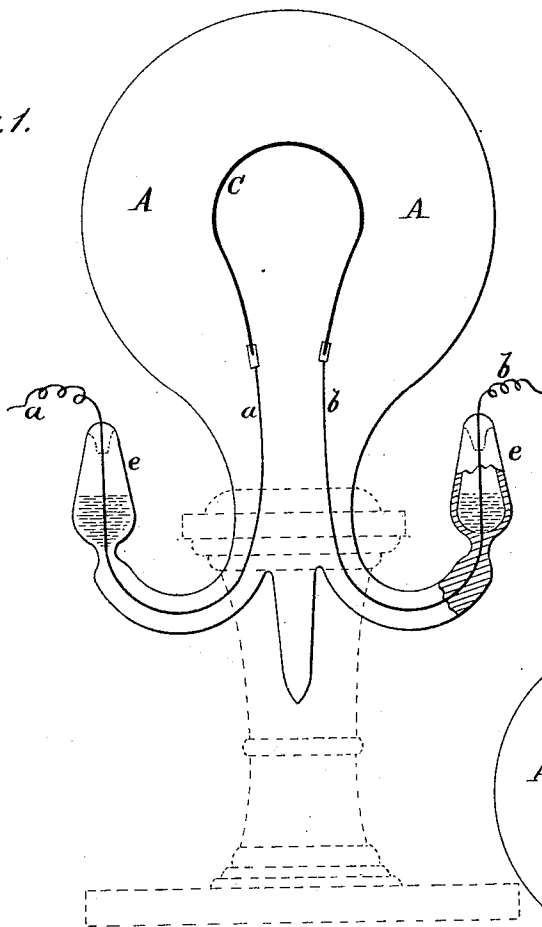
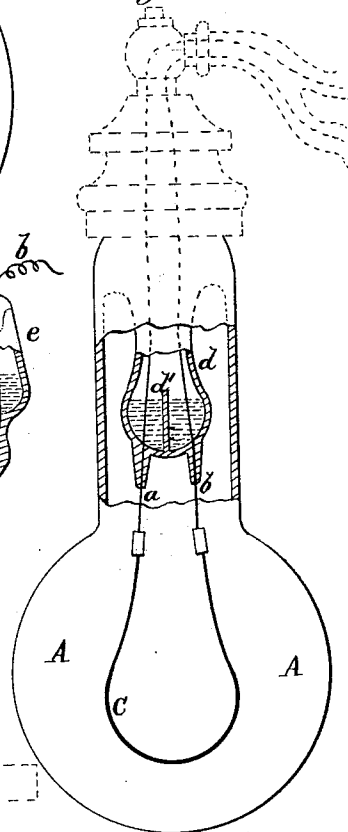


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. GUEST, OF BROOKLYN, NEW YORK.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 225,594, dated March 16, 1880.

Application filed January 9, 1880.

To all whom it may concern:

Be it known that I, JOHN H. GUEST, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Electric Lamps, of which the following is a specification.

My improvement relates to electric lamps wherein a pencil or ribbon of carbon is burned within a chamber of glass exhausted of air.

The object of the invention is to prevent leakage of air into the chamber through the openings made by the unequal expansion of the glass and metal at the points where the wires pass to the outside.

In the accompanying drawings, forming part of this specification, I have shown a sectional elevation of an electric lamp fitted with my improvement.

A is the chamber, of glass or other transparent material. *a b* are the wires passing in at the opposite sides, and connecting with the strip C, of carbon or carbonized material, in any usual or desired manner. The chamber A is sealed air-tight around the wires *a b*, and exhausted in any usual manner. At the ends where the wires *a b* enter the chamber A is extended upward or downward, and formed with bulbs *e* around the wires, in which bulbs mercury is placed and the bulbs then closed at the top.

It will be seen that the mercury in the bulbs *e* forms a liquid seal that prevents the air entering the chamber A along the joint between the glass and wire when the joint is opened by the unequal expansion of the glass and metal. By this means the chamber may be retained exhausted of air as long as required.

I do not limit myself to the chamber in the form exactly as shown, as it may be made in any suitable form, and the mercury-bulbs placed in any desired position.

In Fig. 3 a modification is shown wherein the mercury seal is above the carbon in the chamber *d*, that is divided by a partition, *d'*.

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

1. In electric lamps, the exhausted chamber A, formed with the bulbs *e* at the entering-point of the wires, substantially as and for the purposes specified.

2. In electric lamps, the combination, with the exhausted chamber A and wires *a b*, that are in continuous electrical connection, of the mercury-bulbs *e*, substantially as and for the purposes set forth.

JOHN H. GUEST.

Witnesses:

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C. SEDGWICK.