

T. W. GARDNER.

Lamp-Burners.

No. 134,657.

Patented Jan. 7, 1873.

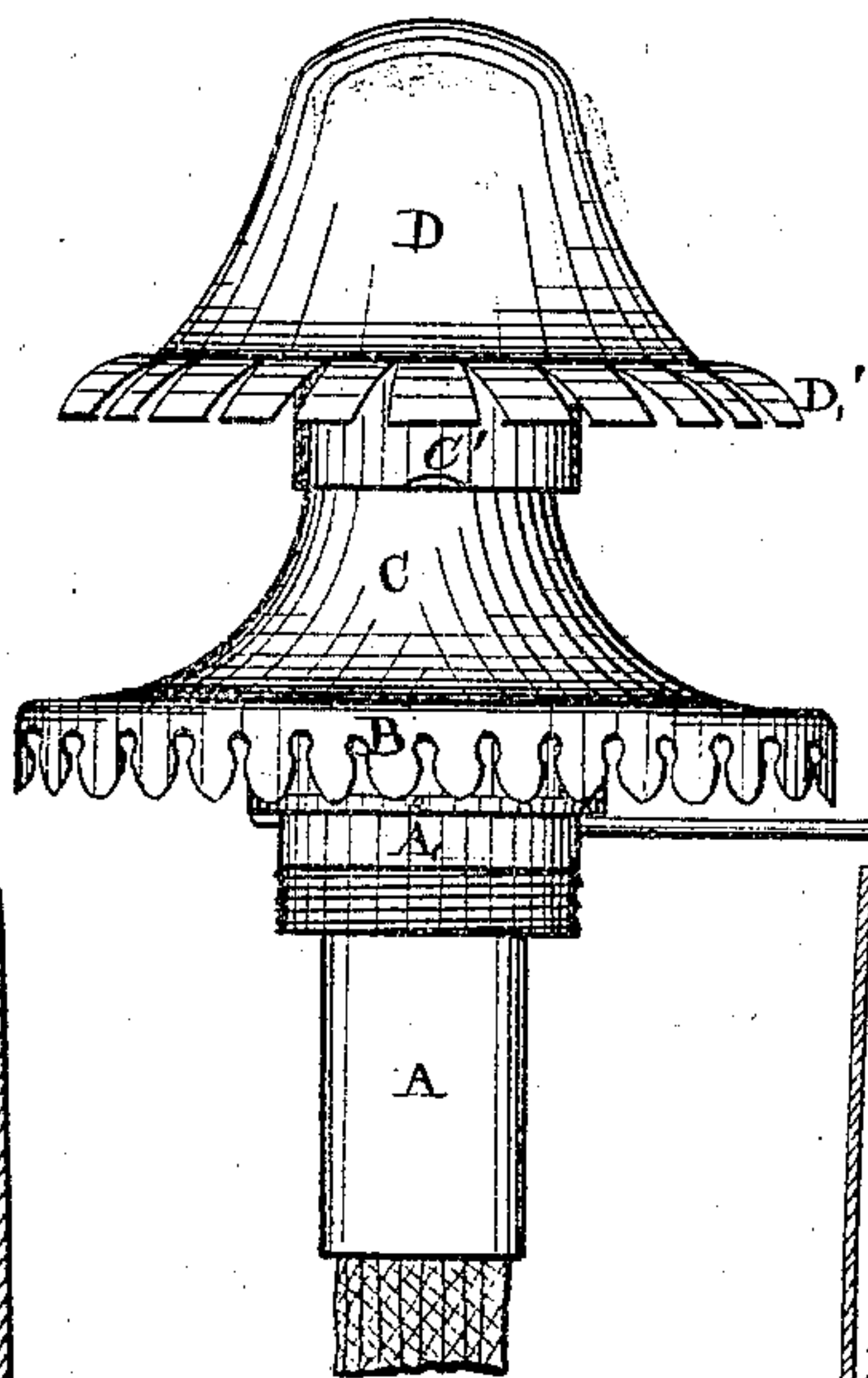


Fig. 1.

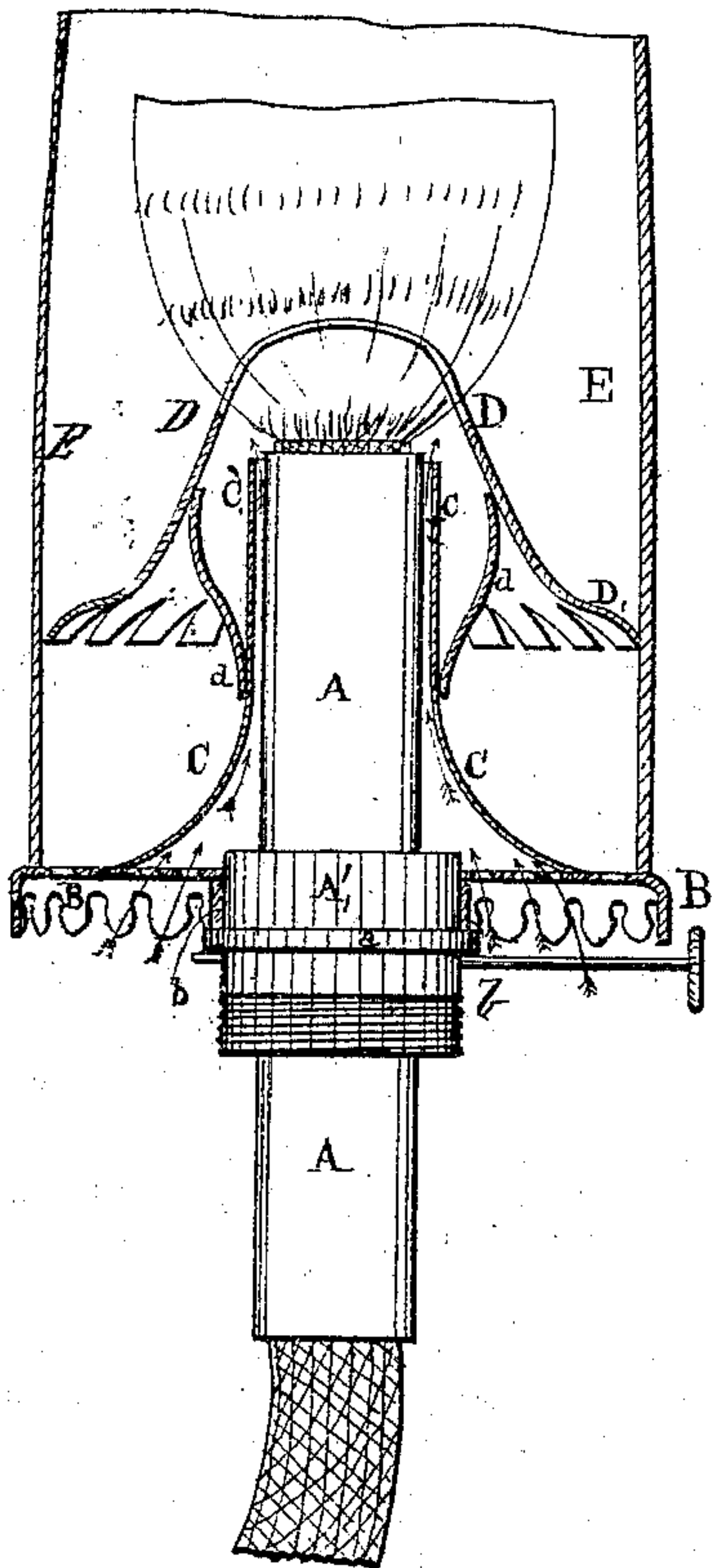


Fig. 2.

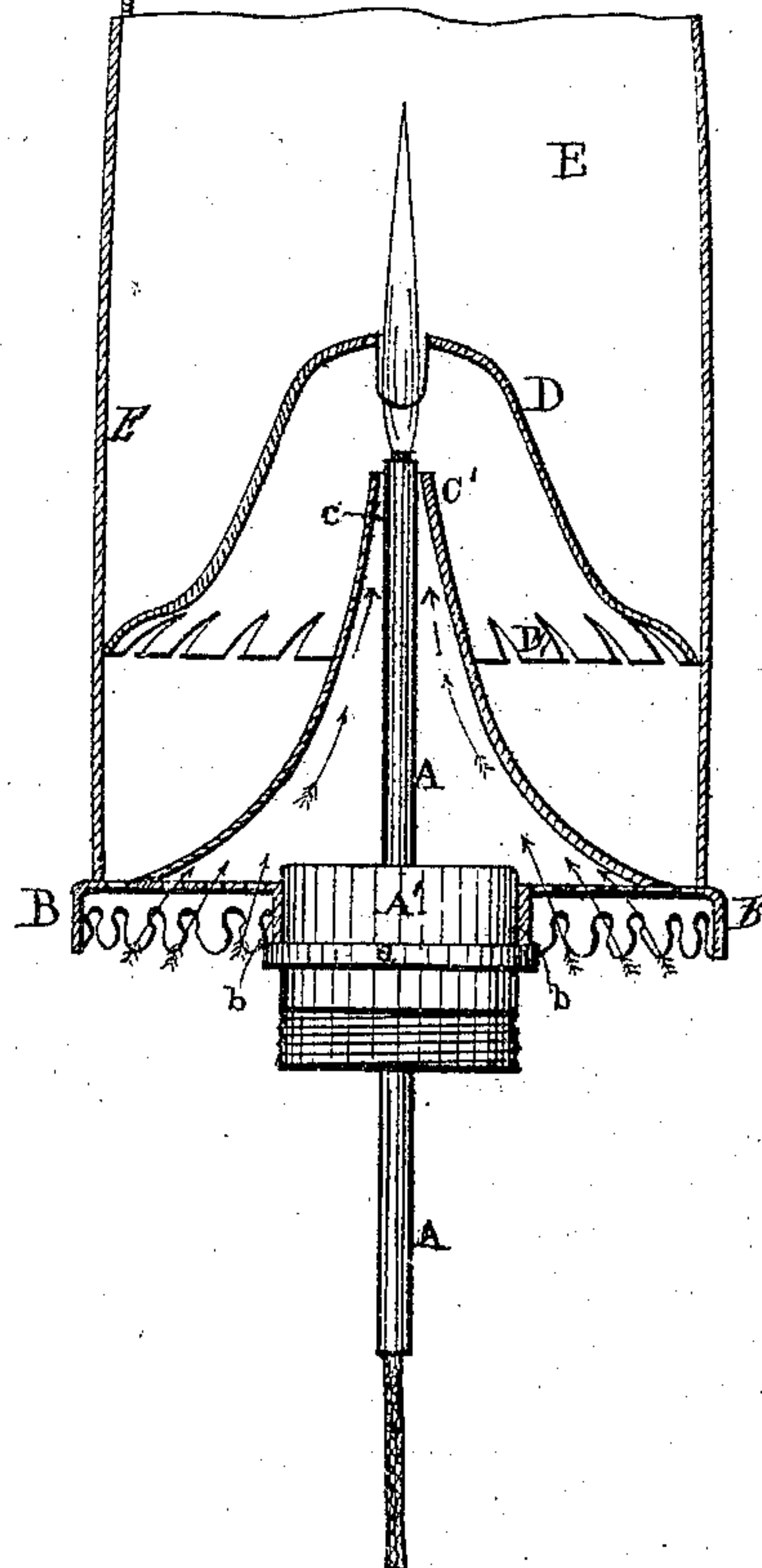


Fig. 3.

WITNESSES

Chas. G. Fisher
Geo. P. Fisher

INVENTOR

Thos. W. Gardner

UNITED STATES PATENT OFFICE.

THOMAS W. GARDNER, OF TERRE HAUTE, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HIRAM J. KEELER, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 134,657, dated January 7, 1873.

To all whom it may concern:

Be it known that I, THOMAS W. GARDNER, of the city of Terre Haute, in the county of Vigo and State of Indiana, have invented a certain Improvement in Lamp-Burners, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawing making a part of this specification.

Figure 1 is an elevation of the burner. Fig. 2 is a vertical section in a plane parallel to the flat side of the wick-tube. Fig. 3 is a vertical section in a plane at right angles to that shown in Fig. 2.

Like letters in all the figures refer to like parts.

This invention relates to lamp-burners of that class in which the wick-tube is extended down in the lamp-bowl to reach to near the bottom thereof; and the improvement consists in combining with such wick-tube a dome or tube encircling it, the contracted end of which reaches to the top of the wick-tube so as to form a narrow air-space around the latter, through which the upward currents of cold air entering through the foraminous base of the dome pass to the flame, and, impinging against the wick-tube, keep it at such a low temperature that all danger of setting fire to the contents of the fountain or bowl by the overheating of the wick-tube is removed.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same, reference being had to the drawing.

The wick-tube A is extended below the hollow plug or cap A', by which it is screwed into the neck of the lamp-bowl to reach to near the bottom of such bowl. The chimney-supporting base is a circular or otherwise properly-formed piece of metal with a large central aperture fitting the hollow cap on a collar, a, of which it rests, with a short downwardly-

projecting annular flange, b, which is formed on its under side around the aperture. That portion of their base which is covered by the lower dome C is finely perforated or slotted, and around the edge of the dome are larger slots or perforations to be covered by the chimney E. The dome C is gradually contracted from its juncture with the chimney-base (presenting an unbroken concave outer surface) until its sides come near the wick-tube; thence its sides are carried up parallel with the wick-tube to its extremity, forming an elongated neck or tube, C', having a narrow air-passage, c, between it and the wick-tube. By this means the cold air entering the perforations of the base B from under the dome impinges against the wick-tube, and is kept in contact therewith until it issues from the top. The wick-tube will thus be maintained at such a low temperature that its lower end may safely be immersed in the fluid in the bowl. The upper dome or deflector D, which has the usual flame-aperture above the wick-tube, is formed with the well-known slitted flange D' to serve as a chimney-holder, and is rigidly secured to the lower cone by arms or posts d d.

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

In combination with the wick-tube A, which is extended below the cap A' to near the bottom of the bowl of the lamp, the dome C, when constructed with the elongated neck C' to form an air-passage around and to the top of the wick-tube, substantially as herein described and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOS. W. GARDNER.

Witnesses:

CHAS. G. FISHER,
GEO. P. FISHER.