

(No Model.)

C. TURNER.
LAMP BURNER.

No. 311,453.

Patented Jan. 27, 1885.

Fig. 1.

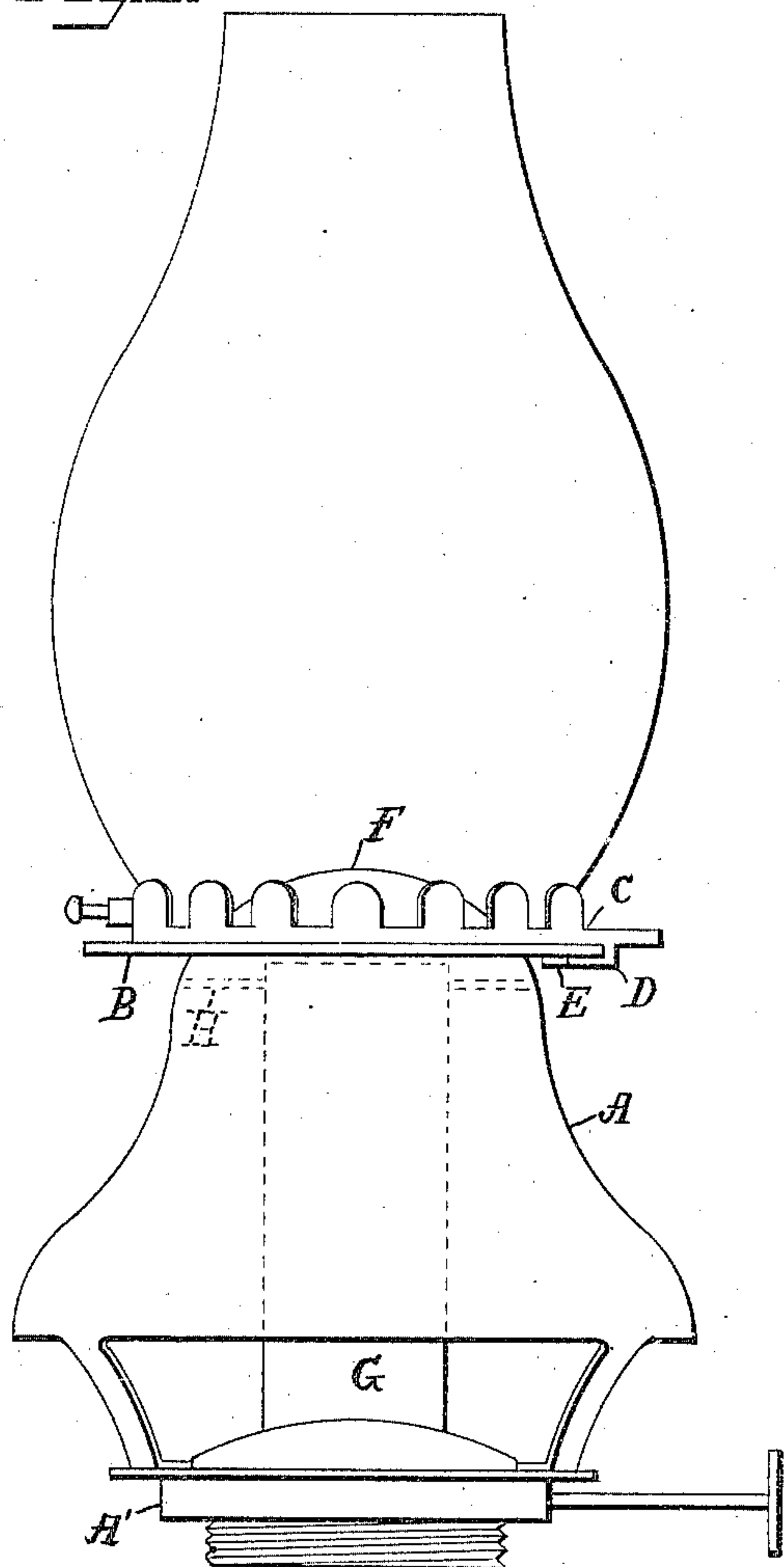


Fig. 2.

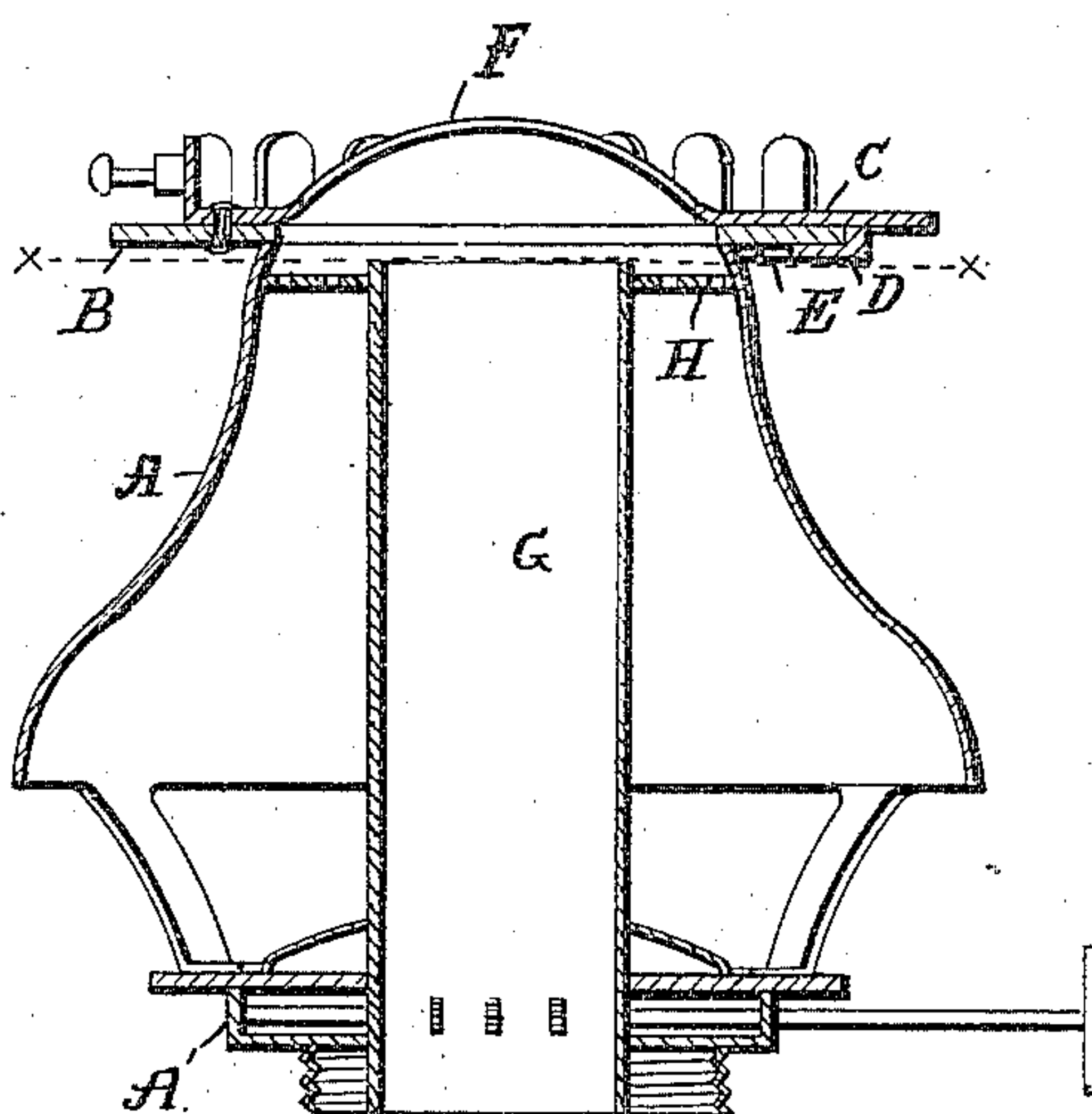
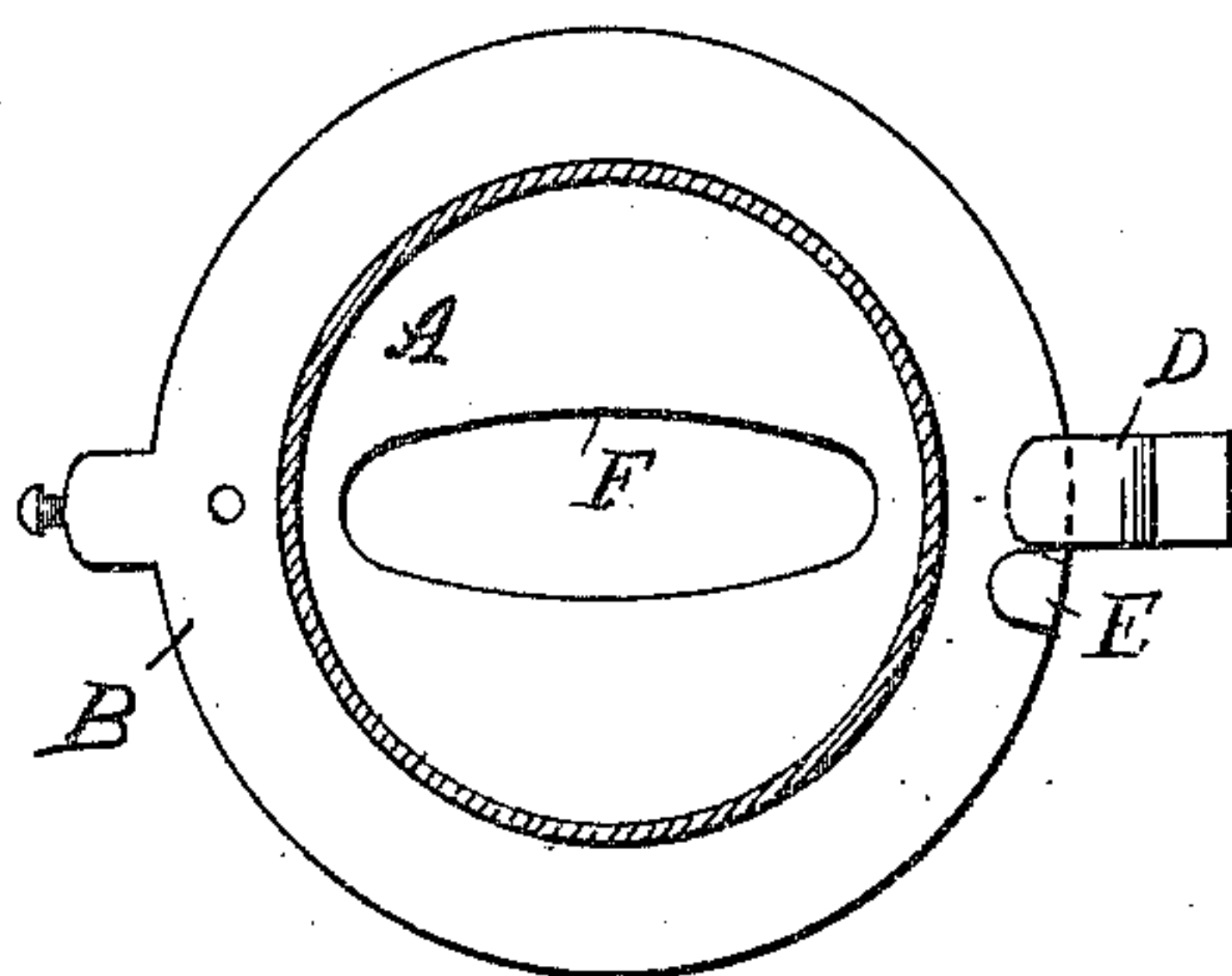


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHRISTIAN TURNER, OF FAIRFIELD, IOWA.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 311,453, dated January 27, 1885.

Application filed May 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN TURNER, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in lamp-burners; and it has for its object to provide a burner which shall draw a considerable quantity of air upwardly and around the wick-tube, and there condense and evenly distribute it as it approaches the flame, whereby a strong draft is created, and yet the flame is made to spread and burn evenly without flickering.

With this end in view my invention consists, essentially, of a lamp-burner the configuration of whose outer shell or body is fashioned after the manner of a bell, the lower end being flared out and increased in diameter, and the walls thereof converged as they approach the upper end, near which point the burner is provided with a perforated diaphragm or air-distributor.

In the accompanying drawings, forming a part of this specification, and on which like letters of reference indicate the same or corresponding features, Figure 1 represents a side elevation of my improved burner having a lamp-chimney mounted thereon; Fig. 2, a vertical sectional view through the burner with the chimney removed; and Fig. 3, a horizontal sectional view taken on the line X X of Fig. 2, and looking down upon the flange of the shell.

The letter A designates the body or outer shell of the burner, the same consisting of metal spun or otherwise formed into the desired configuration and mounted upon the base A'. This body in configuration agrees substantially with that of a bell, the lower end being flared outwardly, thereby increasing the diameter and forming a greater area around the wick-tube at that point. The walls of the body converge as they approach the upper end thereof, at which point it is provided with a flange, B. Pivotaly connected with this flange is a disk, C, having a series of lugs extending upwardly therefrom, and provided with a set-screw, whereby a seat is formed for the chimney and the same is held in place.

The said disk is provided with a stud at one side having a lip, D, which embraces the under side of the flange B, and when the parts are in their proper relative position abuts against a stud, E, on the flange B. This means serves to hold the disk C and flange B firmly together when the chimney is over the wick-tube, and when it is desired to remove the chimney so as to get access to the wick the disk C is revolved horizontally on its pivotal point. The disk C is provided with a conical embossment, F, which extends but a slight distance above the lower end of the chimney, thereby avoiding the usual high cone which encircles a considerable portion of the flame, and allowing the full benefit of almost the entire flame.

The wick-tube G is of the usual or any approved construction, as also the wick-adjuster. A short distance below the upper end of the wick-tube the burner is provided with a horizontal perforated diaphragm, H, which serves the purpose of evenly distributing the air around the base of the flame. The object in locating this diaphragm so near the upper end of the wick-tube is to prevent the air after passing through the diaphragm from uniting in a mass before reaching the flame, which will cause the flame to flicker and burn unevenly. Thus it will be observed that in the operation of my burner the air in a considerable volume is drawn into the enlarged lower end or mouth of the body or shell and condensed as it approaches the flame, just before reaching which it passes through the diaphragm and is equally and evenly distributed around and to the flame, thus supporting combustion and maintaining an even and unflickering light.

It is to be observed that my invention may be applied to lanterns as well as to lamps.

I am aware that it is not broadly new to construct a lamp-burner with a perforated diaphragm for the purpose of distributing the air to the flame; and I am also aware that in another instance a lamp-burner has been provided with a flange to which is pivoted a disk constructed and adapted to receive a chimney. In such latter instance, however, there is no provision for connecting the disk with the flange opposite to the pivotal point, and for limiting the movement in one direction of the disk

relatively with the flange. Furthermore, in the instances here referred to the devices are distinct and separate, while in my improved burner I combine into one device a bell-shape or approximately bell-shape shell and a perforated diaphragm located immediately below the seat of the flame, whereby the air to support combustion is distributed into fine jets close to the flame, and thereby partly taken up by the same before the jets again mingle and become a volume, together with a flange extending from the burner-shell having a stud on the under side, and the pivoted chimney-disk having a lug terminating in a lip which embraces the under side of the flange, whereby the disk is firmly held to the flange and liability to lose the chimney prevented. In a word, my device possesses these features and qualities in a unit, while the devices above referred to do not present such a combination, and hence do not accomplish the same combined result.

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

1. In a lamp-burner, the combination, with the wick-tube, the outer shell of an enlarged diameter at its lower end having converging walls, a flange at its upper end provided with a stud on the lower side thereof, and a perforated diaphragm located within the same immediately below the upper end of the wick-tube, of the pivoted disk having a slight conical embossment, and a stud terminating in a lip which embraces the under side of said flange, whereby the flange and the disk are kept in their relative positions.

2. In a lamp-burner, the combination, with the outer shell or body provided at its upper end with a flange having a stud on the lower side, of the pivoted disk having a slight conical embossment, and a stud terminating in a lip, whereby the flange and disk are kept in their proper relative position.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN TURNER.

Witnesses:

J. G. S. WATSON,
N. ROSENBERGER.