

A. ANGELL.
LAMP-BURNER.

No. 176,920.

Patented May 2, 1876

Fig. 1.

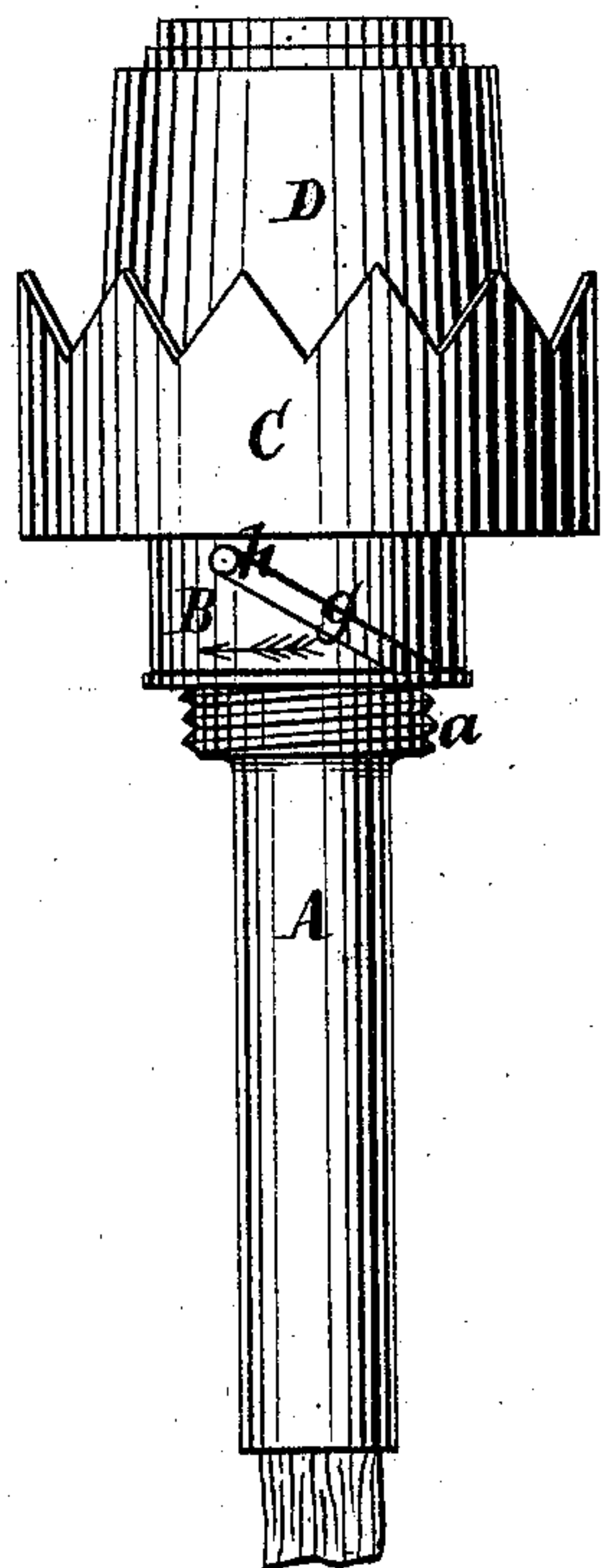


Fig. 2.

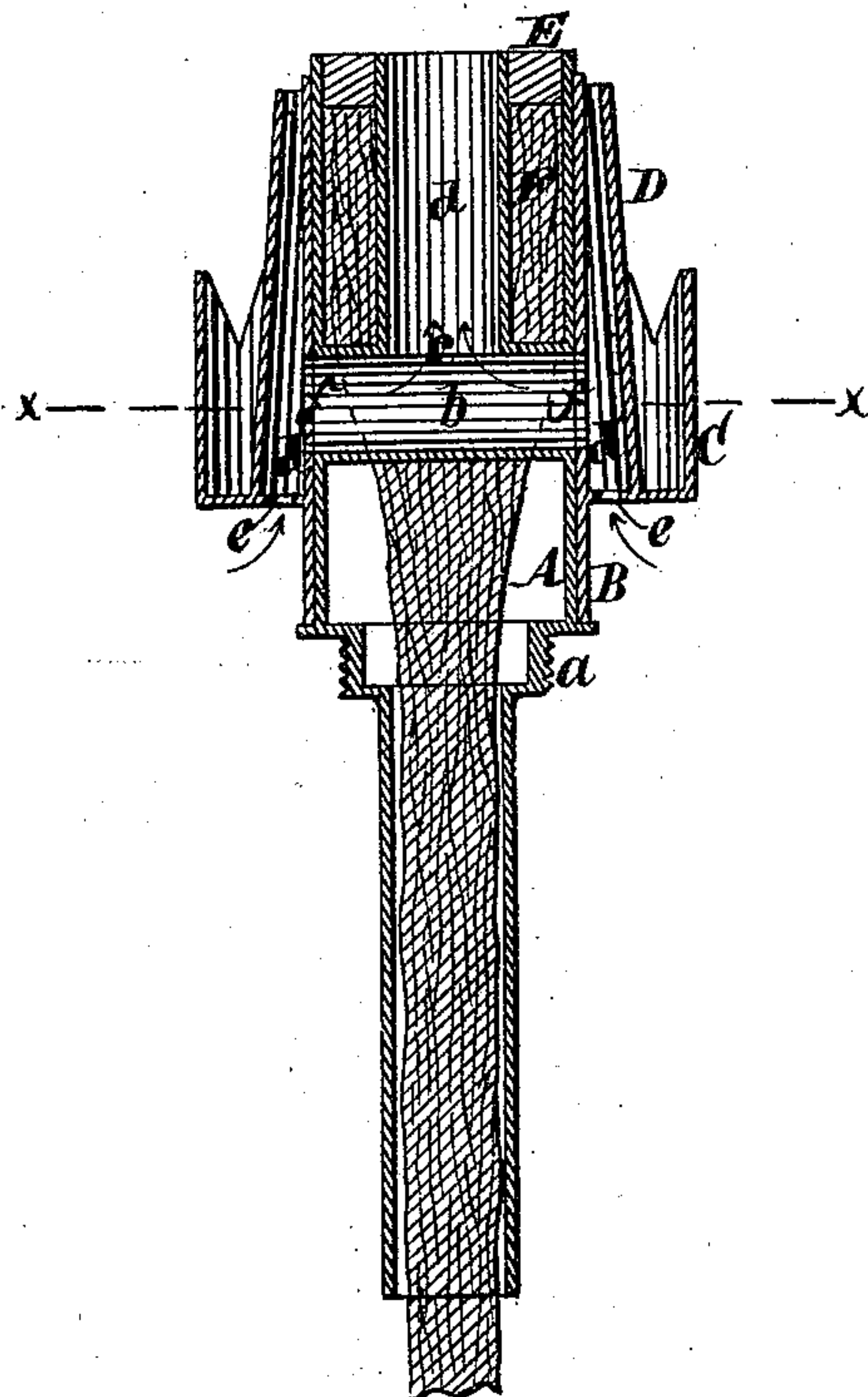


Fig. 3.

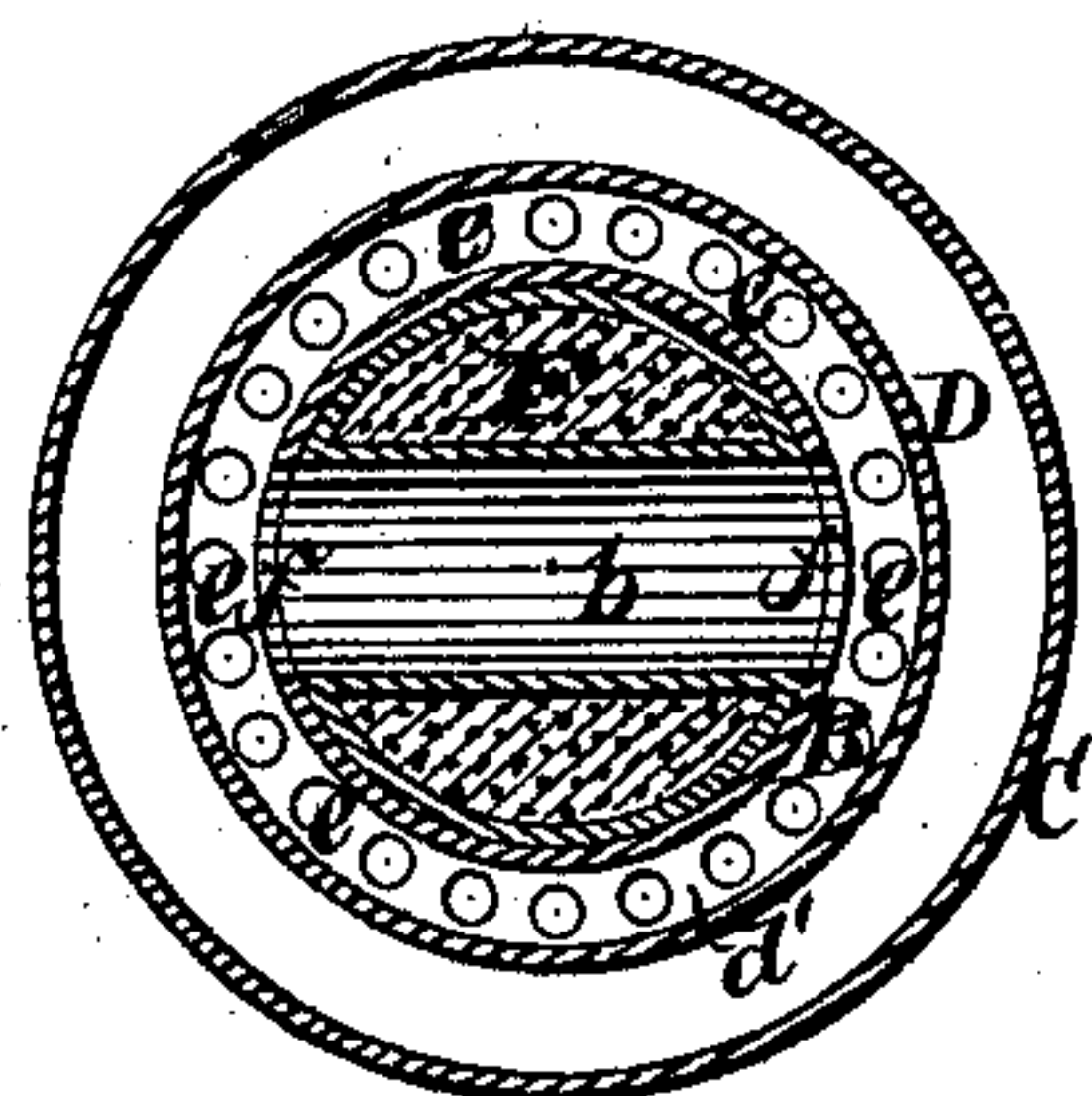
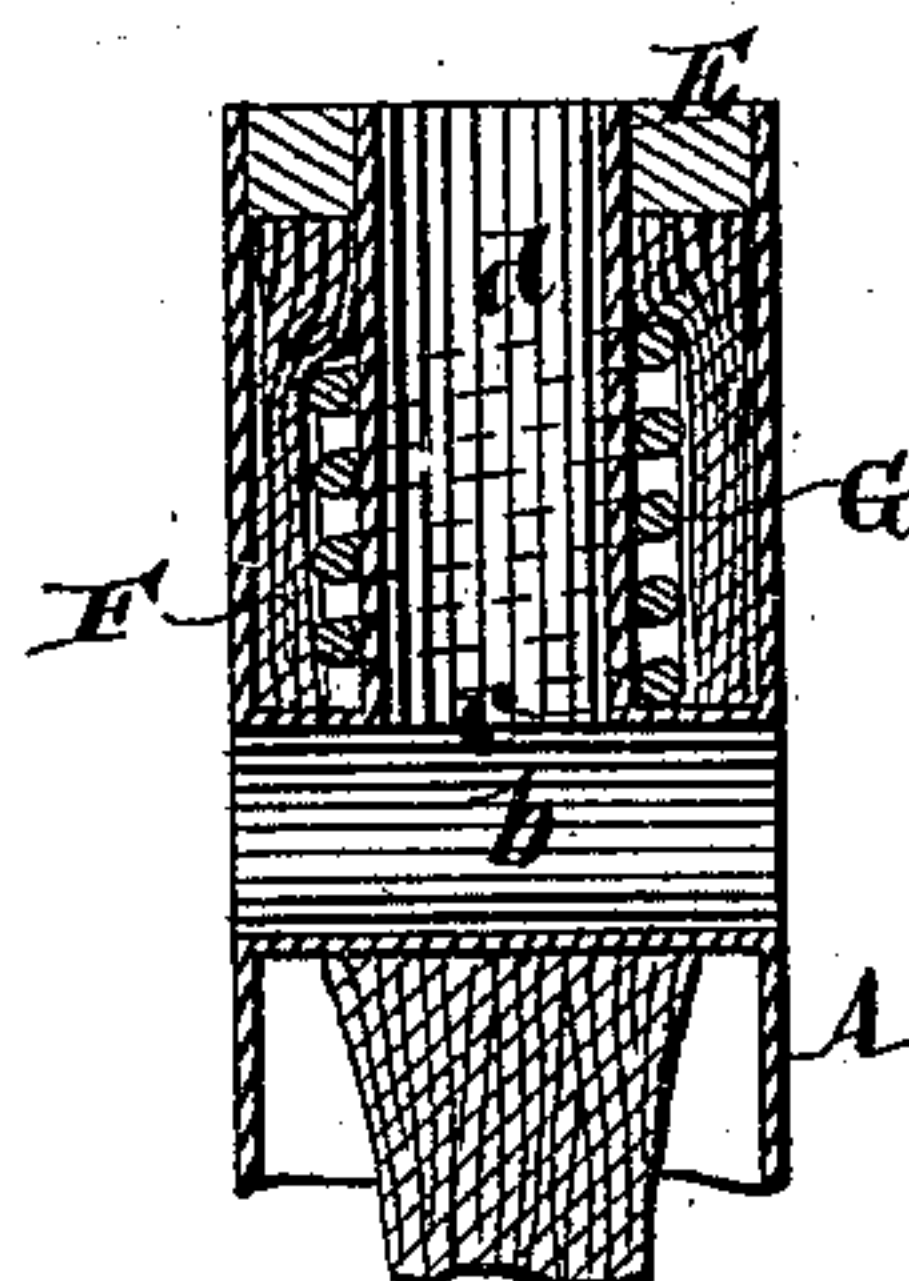


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 176,920, dated May 2, 1876; application filed
January 14, 1876.

To all whom it may concern:

Be it known that I, ALBERT ANGELL, of East Orange, county of Essex and State of New Jersey, have invented a new and Improved Lamp-Burner, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view. Fig. 2 is a vertical central section. Fig. 3 is a horizontal section in the plane *x x*, Fig. 2. Fig. 4 is vertical section of a modification.

Similar letters indicate corresponding parts.

This invention relates to a lamp-burner with a center draft, which communicates with the external air by a transverse channel opening into the outside air-space which surrounds the wick-tube. The inner wall of the outside air-space forms a slide, which can be adjusted up and down by an oblique slot and a pin, so as to increase or diminish the center draft, and to regulate the flame. In the top of the wick-tube is fitted an absorbent non-combustible or refractory ring, which rests upon a filling of cotton or other fibrous material that extends down in the oil-cistern, so that the non-combustible ring is supplied with oil by the fibrous material, while, by its action, said fibrous material is protected from being burned or charred.

In the drawing, the letter A designates the wick-tube of my burner, the upper portion of which is of a larger diameter than its lower portion, and which is provided with a screw-nipple, *a*, to fit a corresponding socket in the lamp. The upper part of the wick-tube is provided with a cross-channel, *b*, which communicates, by an opening, *o*, with the center draft *d*. On the outside of the wick-tube is fitted a sleeve, B, which is provided with a cup, C, for the support of the chimney, and with a conical jacket, D, between which and the sleeve B is formed the outside air-space *d'*, to which air is admitted from below through holes *e*. In the sleeve B are holes *f*, which open in the air-space *d'*, and, if said sleeve is moved down to the position shown in Fig. 2, said holes coincide with the openings of the cross-channel *b*, and the center draft is in free communication with the air-space *d'*.

In the lower part of the sleeve B is cut an

oblique slot, *g*, Fig. 1, which catches over a pin, *h*, projecting from the wick-tube. If the sleeve is turned round, therefore, it is also raised or lowered by the action of the oblique slot on the pin *h*, and by turning the sleeve in the direction of the arrow marked on it in Fig. 1 it is raised and turned so that the openings of the cross-channel are gradually closed, and the center draft is diminished or entirely shut off. At the same time, the mouth of the outside air-space is raised above the top edge of the wick-tube, and the flame is reduced or finally put out entirely.

In the top of the wick-tube is fitted a ring, E, which is made of an absorbent and non-combustible or refractory material, such as asbestos, or a mixture of asbestos and pumice-stone. This ring bears on a packing, F, of cotton or other fibrous material, which extends down through the wick-tube into the oil-cistern.

If desired, a spring, G, may be introduced, as shown in Fig. 4, to keep the fibrous material in close contact with the absorbent non-combustible ring E.

By the fibrous material the ring E is kept supplied with oil, and, if the lamp is lighted, said ring protects the fibrous material from being burned or charred.

If the ring E should ever become choked up or burned out it can easily be removed and replaced by another.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the wick-tube A, cross-channel *b*, center draft *d*, and pin *h*, of a sleeve, B, with air-space *d'*, openings *e f*, and oblique slot *g*, all constructed and operating substantially as shown and described.

2. The combination, with the wick-tube A and center draft *d*, of an absorbent non-combustible ring, E, and a packing, F, of fibrous material, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 31st day of December, 1875.

ALBERT ANGELL. [L. S.]

Witnesses:

W. HAUFF,

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