A. ANGELL.

LAMP-WICK.

No. 185,059. Patented Dec. 5, 1876.

Fig. 1.

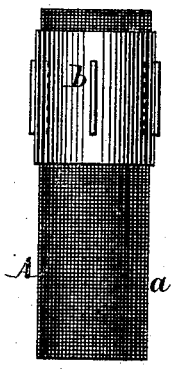
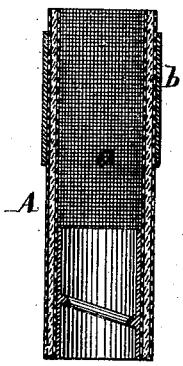


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT ANGELL, OF EAST ORANGE, NEW JERSEY.

IMPROVEMENT IN LAMP-WICKS.

Specification forming part of Letters Patent No. **185,059**, dated December 5, 1876; application filed October 11, 1876.

To all whom it may concern:

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

Figure 1 represents a side elevation. Fig. 2 is a longitudinal central section.

Similar letters indicate corresponding parts.

This invention relates to a lamp-wick which is composed of a non-combustible casing perforated throughout its entire length and filled with mineral wool or other non-combustible absorbent material. With this casing and its absorbent non-combustible filling is combined a jacket which embraces the perforated casing at a short distance below its top edge, so that a sufficient quantity of the absorbent material is exposed to produce a flame of the desired size and illuminating power.

In the drawing, the letter A designates my lamp-wick, which is composed of a casing, *a*, of wire-gauze, perforated sheet metal, or other foraminous, flexible, and non combustible or refractory material. In the example shown in the drawing the wick A is circular and arranged for a center draft, but my invention is applicable to flat wicks also.

The casing *a* is filled with mineral wool, or, instead of this material, the loose fibers of asbestus may be used, or any other non-combustible absorbent material may be substituted. Said casing is open at the top and closed below, and if the wick is inserted into a lamp the burning liquid passes through the perforations of the casing to the absorbent non-combustible filling, and it is carried up to the top of the wick by capillary attraction.

When the lamp is lighted the flame produced at first appears only at the top edge of the wick, but as soon as the wick begins to heat the burning liquid oozes out through the perforations of the casing and the flame extends down below the top edge of the wick, and, unless the progress of the flame is checked, it ignites the burning-fluid in the cistern of the lamp.

In order to obviate this difficulty, I have combined with the casing *a* of my wick a jacket, *b*, which embraces said casing closely, but which terminates at some distance below the top edge of the wick.

This jacket may be firmly connected to the casing *a*, or it may be made in the form of a closely-fitting sleeve, so that, by moving either the wick or the jacket, the size of the flame can be adjusted.

By making the casing foraminous throughout its entire length, it forms a wick similar to the ordinary fibrous lamp-wick, and the flame will not be confined to the top edge or extremity of the wick, but will extend downwardly a distance corresponding to the extent of the perforated casing exposed at the top of the lamp-tube, which could not be effected if the casing were perforated only at the lower end, which sits in the oil or fluid in the lamp.

If the casing is made of some material without perforations, the flame is confined entirely to the top edge of the wick, and the light produced by this flame is, in most cases, insufficient. But by using a suitable perforated material for the casing, and a jacket for preventing the flame from spreading beyond the desired point, I am enabled to produce a non-combustible lamp-wick, which will give a flame of the requisite illuminating power, and which can be used for a long time.

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

1. A lamp-wick composed of a casing perforated throughout its entire surface and filled with a refractory substance, and adapted to be used with a jacket, substantially as and for the purpose specified.

2. The combination, with the perforated casing *a* and its filling, of mineral wool or other equivalent material, of a jacket for preventing the flame from spreading beyond the desired point, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 6th day of October, 1876.

ALBERT ANGELL. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.