

J. BENSON.
VAPOR BURNER.

No. 186,101.

Patented Jan. 9, 1877.

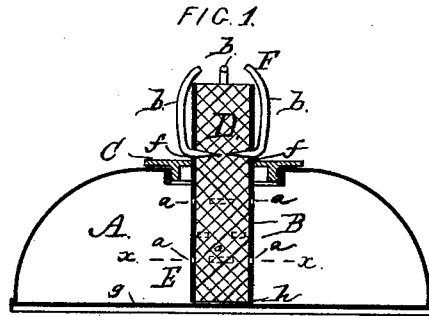


FIG. 2.

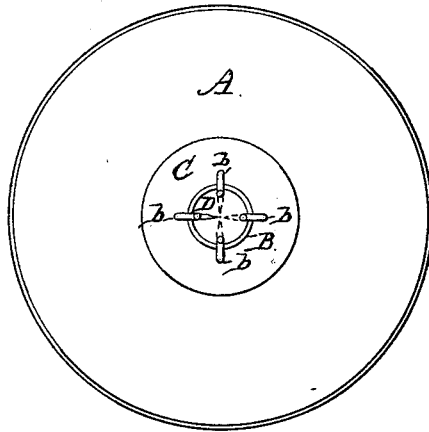


FIG. 3.



WITNESSES.

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JOSEPH BENSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. **186,101**, dated January 9, 1877; application filed November 11, 1875.

To all whom it may concern:

Be it known that I, JOSEPH BENSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Vapor-Lamps, of which the following is a specification:

My invention relates to certain improvements in lamps; and consists in combining with the wick-tube projections which lie over the wick at the end, and extend below and enter the wick-tube, as will hereinafter more fully appear.

In the accompanying plate of drawings, Figure 1 is a vertical cross-section of a vapor-lamp constructed according to my invention. Fig. 2 is a plan view, and Fig. 3 a horizontal cross-section, of wick-tube on line *x x*, Fig. 1.

In the drawings, A represents the body of a vapor-lamp, and B the wick-tube, adapted, with a cap-plate, C, to be attached and removed as ordinarily. This wick-tube B projects into the body A of the lamp, and it is filled and packed with granulated or pulverized mica and asbestos in equal parts or thereabout, as at D, which packing D is the wick of the lamp. *a a*, perforations or slits in the sides of that part E of the wick-tube B which is within the lamp-body A. These perforations afford a freer communication between the oil in lamp-body A and the wick D. *b b*,

projections which lie over the burning end F of the wick-tube, and from there they extend down the sides of the wick-tube B and enter the inside of the same, as shown at *f*, Fig. 1.

The wick, by means of the projections *b* and wick-tube, conducts heat from the flame to the oil in a most efficient manner, thereby greatly increasing the brilliancy and clearness of the illuminating flame. If the wick-tube does not press close to the bottom *g* of the lamp-body, then the lower end *h* of the wick-tube should be closed preferably with wire-gauze or a perforated cap.

Instead of using mica and asbestos combined, as herein described, for a wick-filling to the wick-tube, mica, or asbestos alone may be used, but it is preferable to use the two together.

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

The projections *b*, overlaying the burning end of and also entering the wick-tube B, substantially as described, for the purpose set forth.

JOSEPH BENSON.

Witnesses:

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