

M. B. WRIGHT.

Lamp Burner.

No. 41,172.

Patented Jan. 5, 1864.

Fig. 1

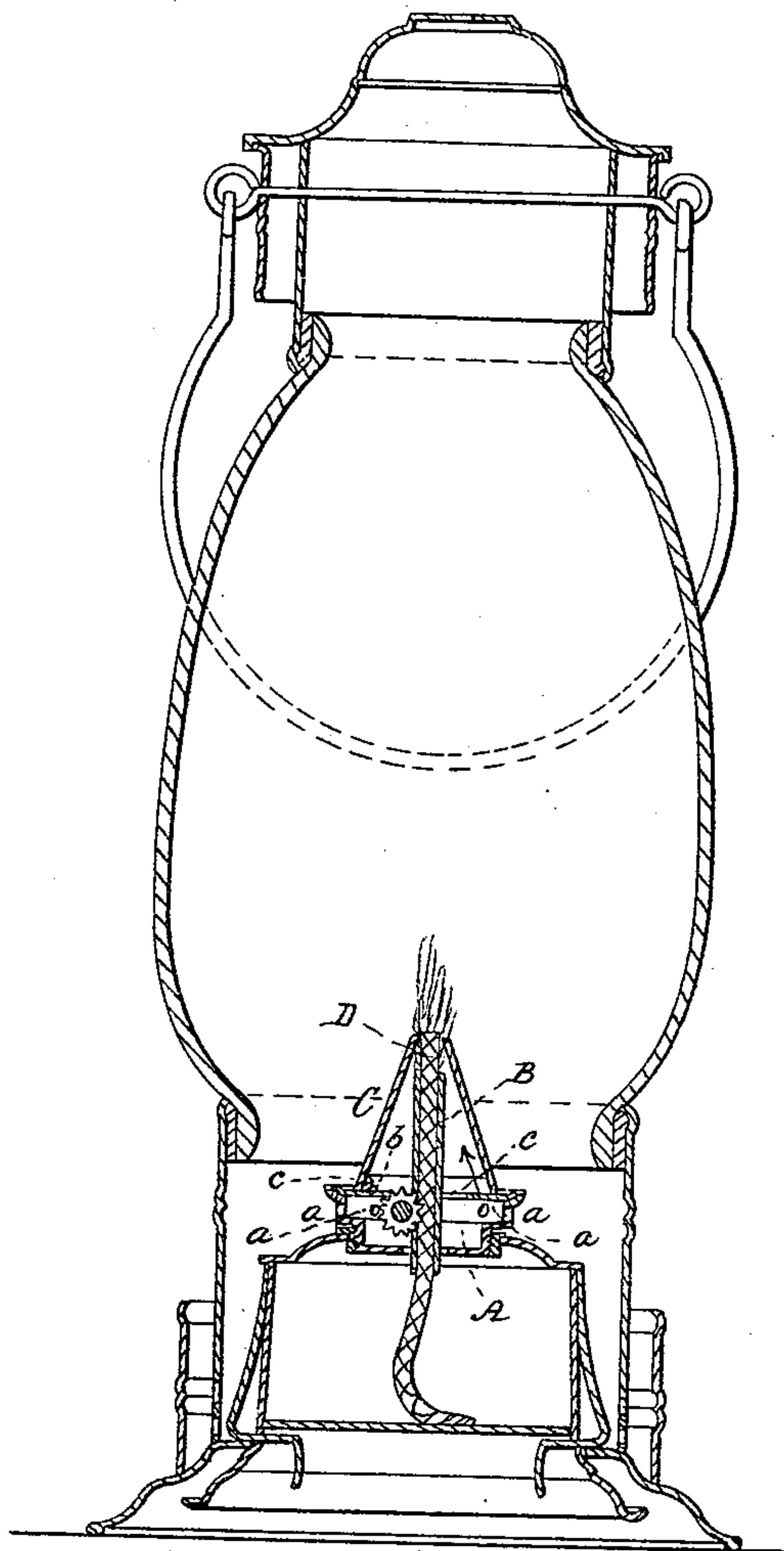
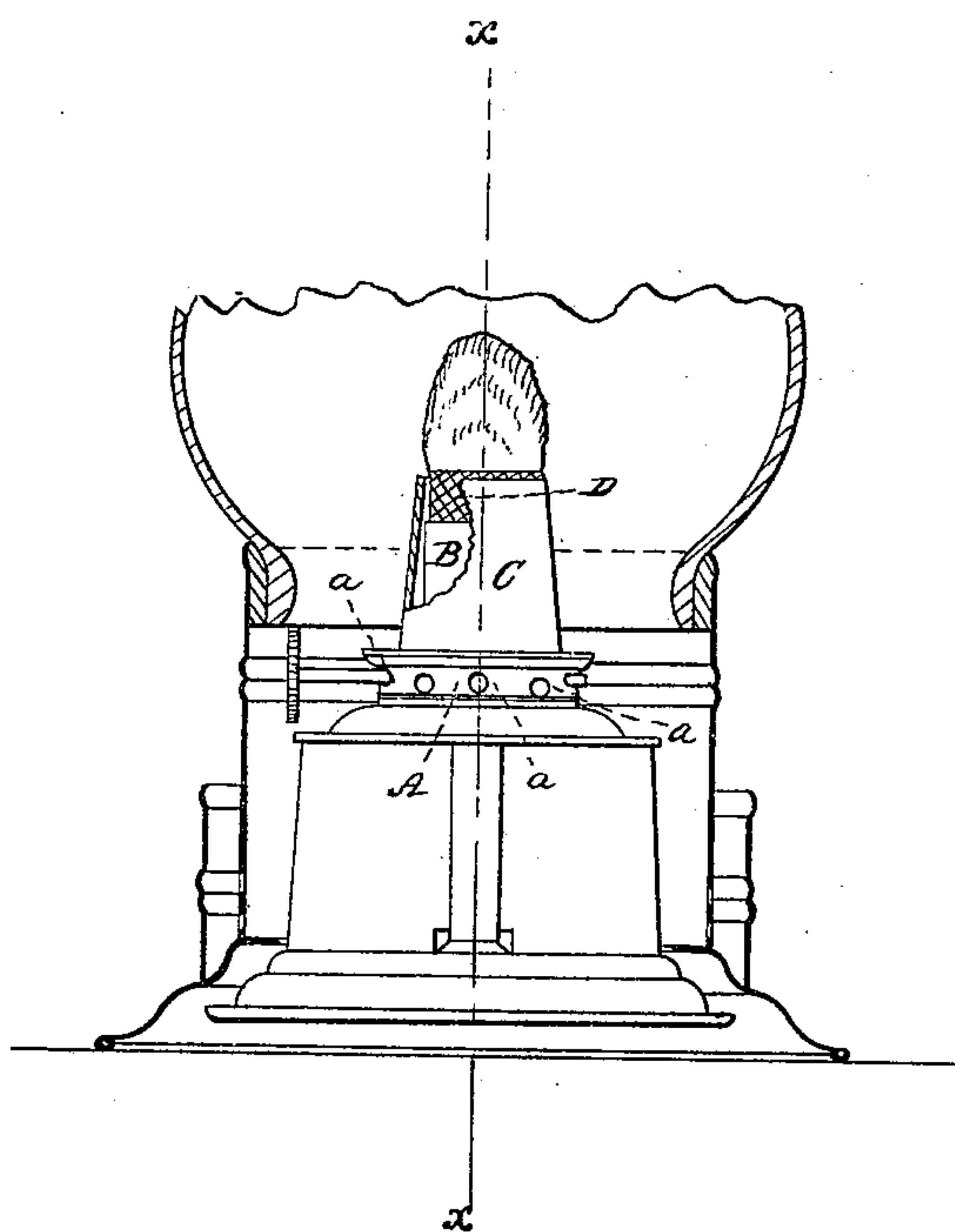


Fig. 2.



Witnesses:

J. W. Coombs  
Geo. W. Reed

Inventor:

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# UNITED STATES PATENT OFFICE.

M. B. WRIGHT, OF WEST MERIDEN, CONNECTICUT.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 41,172, dated January 5, 1864.

*To all whom it may concern:*

Be it known that I, M. B. WRIGHT, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new and Improved Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention applied to a lantern, taken in the line *x x*, Fig. 2; and Fig. 2, a side view of the same, the lantern being bisected vertically.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in providing the burner with a jacket formed and arranged relatively with the wick-tube in such a manner that the flame is isolated from the wick-tube and made to rest upon the top of the jacket, between which and the wick a current of air rushes upward and impinges against the base of the flame, supplying the latter with a requisite amount of oxygen to support proper combustion, and at the same time keeping the burner cool, so as to prevent an undue volatilization of the oil in the lamp.

The invention is designed for a coal-oil burner to be used without a draft-chimney.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the base of the burner, and B the wick-tube secured therein. These parts may be of usual or any proper construction. The base A is perforated with holes *a* to admit air, and on the top of the base A, near its edge, there is a conical flange, *b*, on which a jacket, C, is fitted; and in the top of the base A, at each side of the wick-tube, there is made an opening, *c*, (one or more,) to admit of the air which passes through the openings or holes *a* passing up into the jacket C, as indicated by the red arrows in Fig. 1.

The jacket C is circular at its base and gradually contracts at two opposite sides, so as to have a long narrow slot or opening at its upper end, of little larger dimensions than a transverse section of the wick D. The jacket C extends upward above the top of the wick-tube B some distance—say from three-eighths to one-half inch—and the wick D consequently is exposed some length at its

upper part, as shown clearly in both figures. The top of the wick, when adjusted for use, is a trifle above the jacket C, and it will be seen that when the wick is lighted the base of the flame will rest upon the top of the jacket, and will be isolated from the wick-tube B. This feature constitutes the gist of the invention. It prevents the wick-tube from being heated and conducting heat down to the fountain of the lamp, while the air that rushes up through the jacket, as indicated by the red arrows, is brought in contact with the upper part of the wick, and is made to impinge against the base of the flame; thereby supplying the latter with a requisite amount of oxygen to support proper combustion, and at the same time keeping the wick-tube and wick in a cool state. The oil in the fountain or body of the lamp, in consequence of not being heated by the wick-tube, cannot be rapidly or unduly volatilized, and the flame will not be supplied with vapor in excess of the oxygen. A brilliant illuminating flame is the result without smoke or odor and without the aid of a draft-chimney.

I would remark that this burner is capable of being used either with one or two wicks.

I am aware that it is common to construct lamp-burners with deflecting-cones surrounding and projecting above the wick-tube; but the peculiarity of my invention consists in forming the cone and the slot therein of such shape and dimensions that the base of the flame will not be inclosed by the top of the cone or jacket, but will rest on the top of it, as hereinbefore explained.

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

The combination of a base, A, of any suitable form, the flat wick-tube B, and the converging jacket C, terminating in a level or nearly level top forming an elongated aperture at a distance above the top of the wick-tube B, when the said parts are constructed and arranged in the manner herein shown and described, so that when in use the upper part of the wick will be exposed above the top of the wick-tube, and the base of the flame will rest on the top of the jacket C.

M. B. WRIGHT.

Witnesses:

G. M. PHELPS,  
J. D. SMITH.