J. K. ANDREWS

LAMP.

No. 48,760. Patented July 11, 1865.

Fig. 1

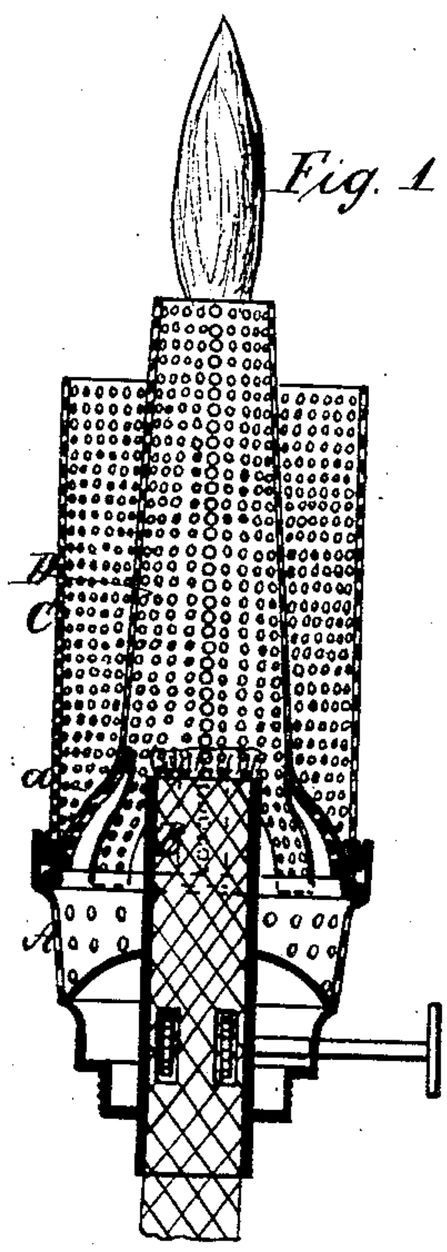
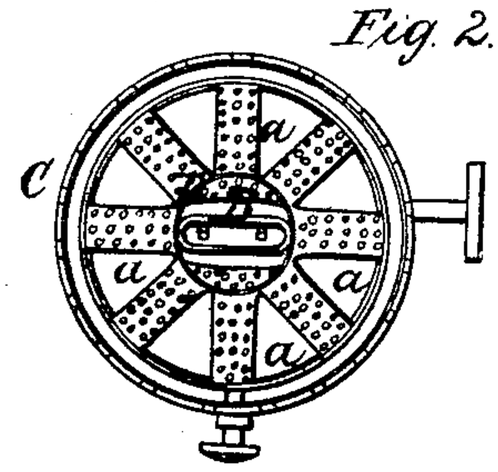


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOSEPH K. ANDREWS, OF ANTRIM, OHIO, ASSIGNOR TO HIMSELF AND J. C. TILTON, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **48,760**, dated July 11, 1865.

To all whom it may concern:

Be it known that I, JOSEPH K. ANDREWS, of Antrim, county of Guernsey, and State of Ohio, have invented a new and Improved Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a vertical central section of my invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention consists in the employment or use of two perforated cylinders, one inside the other, and connected together by arms extending from the inner to the outer cylinder, in combination with an ordinary kerosone-lamp burner, in such a manner that by the air admitted through the perforations of the two cylinders, and by the draft occasioned by the same, the smoke and surplus carbon are consumed and a burner is obtained which gives a brilliant and odorless light without the use of the ordinary glass cylinder.

A represents the top of an ordinary lamp-burner, which is provided with a wick-tube, B, of the usual form and construction.

Instead of the ordinary glass cylinder placed on the top of the burner I use a double cylinder, C D, made of perforated sheet metal or wire-gauze or other equivalent material, as clearly shown in Fig. 1 of the drawings. The inner cylinder, D, connects with the outer cylinder, C, by a series of curved arms, *a*, which are bent over the wick-tube, as clearly shown in the drawings. The inner cylinder, D, may be made round or flat, and it extends up somewhat beyond the top edge of the outer cylinder, which is to be made cylindrical to fit into the top of the burner. If desired, the inner cylinder, D, or both the inner and outer cylinders, may be made slightly tapering.

The wick terminates at the upper edge of the wick-tube in the ordinary manner, and when the flame is lighted the gases and products of combustion rise through the inner cylinder, and they ignite on the top edge of the same, giving a brilliant flame, either round or flat, according to the shape of said cylinder. The air passing in through the perforations in the cylinder or cylinders mingles with the smoke and unconsumed carbon emanating from the wick, and they are fully consumed, so as to give a brilliant and odorless flame.

By the combination of the outer with the inner cylinder the draft is increased and the escape of unconsumed smoke is prevented. Without this outer cylinder a flame is obtained much less brilliant and emitting a bad odor, which renders the burner impracticable.

It is obvious that my double cylinder can be made of all sizes to fit to lamp-burners of different size and shape, and by its use the employment of the ordinary fragile glass cylinder can be dispensed with.

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

The application of two cylinders, C D, made of perforated sheet metal or other equivalent material, and secured, one inside the other, on a lamp-burner, A, of the ordinary construction, substantially as and for the purpose herein shown and described.

JOSEPH K. ANDREWS.

Witnesses:

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