

Lamp.

Patented May 4, 1869.



# United States Patent Office.

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*Letters Patent No. 89,696, dated May 4, 1869.*

## IMPROVEMENT IN LAMPS.

*The Schedule referred to in these Letters Patent and making part of the same.*

*To all whom it may concern:*

Be it known that I, SOLOMON P. SMITH, of Waterford, in the county of Saratoga, and State of New York, have invented a new and improved Lamp; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section through line *y y* of fig. 2.

Figure 2 is a horizontal section through line *x x* of fig. 1.

The object of this invention is to provide, for public use, a lamp, in which a blast of air is supplied to intensify combustion, the parts which create and sustain the blast being so constructed as to operate without any of that disagreeable rattling and clattering that has heretofore prevented lamps constructed on the blast principle from coming into general use.

In the drawings—

A represents the body of the lamp;

B, the wick; and

C, the air-passage around the body of the lamp, from the base to the top, through which currents of atmospheric air, received at the holes *c c* in the base, are forced to the wick, by means of the mechanism hereinafter described.

Attached to the base by flanges, *a a*, and screws, *a' a'*, is a supporting-plate, D, which sustains the working-mechanism that creates the blast.

E is the frame of the clock-work.

F, the spring.

G, the great wheel.

*p r*, the pawl and ratchet.

K, the key-spindle.

H I J L, gear-wheels, by which the motion of the great wheel, multiplied many hundred times, is communicated to an upright worm-shaft, M, bearing the fan N at its top, the latter being surrounded by a vertical tube, or open cylinder, O.

All the clock-work mechanism, thus described, is supported by the base-plate D and frame E, and is connected with the body of the lamp only in two places, to wit, at the flanges *a a* and the sides of the cylinder O.

At these bearing-points, I accordingly insert rubber, felt, or other similar material, *m m'*, between the wall A and the clock-work frame and base-plate, so that the jar and vibrations, if any, of the clock-work and its frame, shall not be communicated to the sonorous body of the lamp, by which they would be greatly increased, but shall be entirely confined within the interior space at the bottom of the lamp. The walls of the lamp, therefore, instead of strengthening the vibrations of the working-mechanism, as heretofore, actually prevent their being heard, thereby obviating the difficulty heretofore experienced in connection with this class of lamps.

Having thus described my invention,

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

In a lamp, provided with a blast-apparatus, the employment of rubber, or other packing, *m m'*, inserted between the clock-work and the walls of the lamp, to deaden the sound, substantially as described.

To the above specification of my improvement, I have set my hand, this 8th day of February, 1869.

SOLOMON P. SMITH.

Witnesses:

CHAS. A. PETTIT,

SOLOMON C. KEMON.