

SAMUEL W. FOWLER. Lamp Burner.

No. 125,672.

Patented April 16, 1872.

Fig. 1.

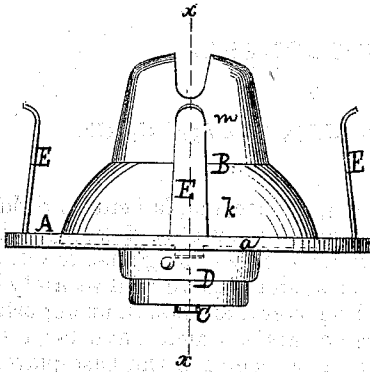


Fig. 2.

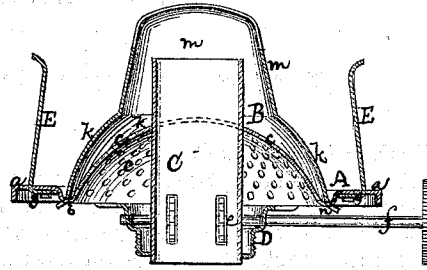


Fig. 3.

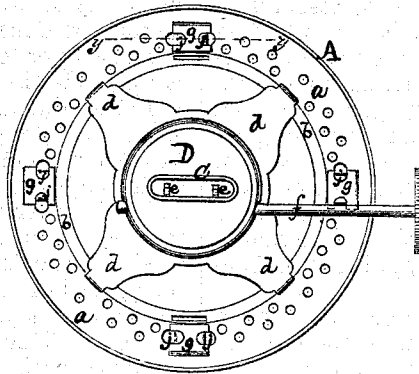
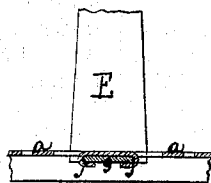


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

SAMUEL W. FOWLER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 125,672, dated April 16, 1872.

To all whom it may concern:

Be it known that I, SAMUEL W. FOWLER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms part of this specification.

My invention consists, first, in the combination, in a lamp-burner, of a dome-shaped base-plate, with a cone having a corresponding dome-shaped base and a cupola top, whereby an exceeding efficient burner is produced, as will be hereinafter more particularly set forth.

In the accompanying drawing, Figure 1 is a side elevation of a lamp-burner containing my present improvements. Fig. 2 is a vertical central section of the same taken on the plane of the line *x x*, Fig. 1. Fig. 3 is an inverted plan view of the base-plate. Fig. 4 is a section of base plate taken on the line *y y*, Fig. 3, and enlarged from Fig. 3.

A designates the base-plate of the burner, which base-plate may be stamped out of a single disk of metal by stamping-dies and presses in the usual way. This base-plate is provided with a circular horizontal rim, *a*, for the base of the chimney to rest upon, with a concentric groove or depression, *b*, for receiving and confining the edge of the cone *B* when adjusted in place; and the base-plate then proceeds upward to the wick-tube, forming a dome, *c*. (See Fig. 2.) The said dome and rim are provided with the requisite number of perforations to supply the flame with air. The body *D* of the burner is in the example shown stamped entire out of a single piece of metal, and provided with arms *d* which span the space under the dome *c*, and are connected at their ends to the rim of the base-plate, as will be seen by reference to Fig. 3. The body is provided with a wick-tube, *C*, and the ratchet-wheels *e* and shaft *f* in the usual manner. *E* designates the chimney-holding springs, which are in the present instance arranged to hold a chimney of the sun-burner class by outside pressure, in the usual way. The method of connecting the chimney-holding springs to the base-plate will be understood by reference to Figs. 2, 3, and 4. The lower end of a spring, *E*, is inserted through a slot in the base-plate, and, either before or

after being so inserted, is bent at right angles to the upper portion of said spring; this horizontal portion *g* lies up against the under side of the rim *a*, and is there held securely in place by bending over and upon it, on opposite sides, tongues or ears *j*, which have been stamped down from the metal of the base-plate, as will be understood by reference to Figs. 3 and 4. I preferably provide the spring, when cutting it out, with a recess on opposite edges, as seen in Fig. 3, so that the ears or tongues *j* may clasp the same around a neck portion, and thereby produce a more secure fastening. In lieu of ears or tongues upon the base-plate, I can provide the springs with ears or tongues, and clasp the latter to the base-plate; as, for instance, a tongue, one or more, projecting from the portion *g* of the spring could be passed up through the rim *a*, and pressed down upon it; but I prefer to provide the base-plate with the tongues or ears to clasp the spring, for the reason that it is made of softer metal than the spring, and can therefore be more easily manipulated, and it possesses less liability to crush or break. This method of fastening entirely dispenses with the soldering and riveting of the spring to the base-plate, as at present practiced, and it decreases the cost of manufacture, and produces a more reliable, durable, and neater fastening in all respects. The cone *B* is a "close" cone, so called. The lower part *k* of the cone is dome-shaped, and corresponds in form to the dome *c*, though the former is, preferably, made more crowning than the latter. The dome *k* runs up sufficiently high to include the highest row of perforations through the dome *c*. From the top of this dome *k* the cone proceeds upward, and forms a sort of cupola, *m*, which surrounds the wick-tube; and this cupola *m* is provided at its top with the usual or any suitable slot for permitting the flame to emerge. This cone is provided with the common tongue-and-slot fastening, as shown in Fig. 2, whereby it may be secured to the base-plate.

I have found by repeated competitive tests and trials between my improved burner, herein above described, and the best burners in the market, that I have accomplished a most desirable result: that I have, in fact, produced a burner which gives a better and steadier light than any with which I am acquainted, not even

excepting the celebrated "Drummond-Light Burner," of which I am also the inventor. This result I attribute to the shape of the cone, in connection with the dome-shaped base-plate, the air being supplied in sufficient quantity and conducted in such manner to the flame as to insure a perfect combustion, thereby producing an intense bright white light.

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

In a lamp-burner, I claim the combination, with the base-plate A constructed with the

dome *c*, of the cone B constructed with the dome *k* and cupola *m*, the said dome part *k* of the cone corresponding in shape to the dome-part *c* of the base-plate, and the upper end of wick-tube so arranged as to project up into and be surrounded by the cupola *m* of the cone, substantially as herein specified.

SAMUEL W. FOWLER.

Witnesses:

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