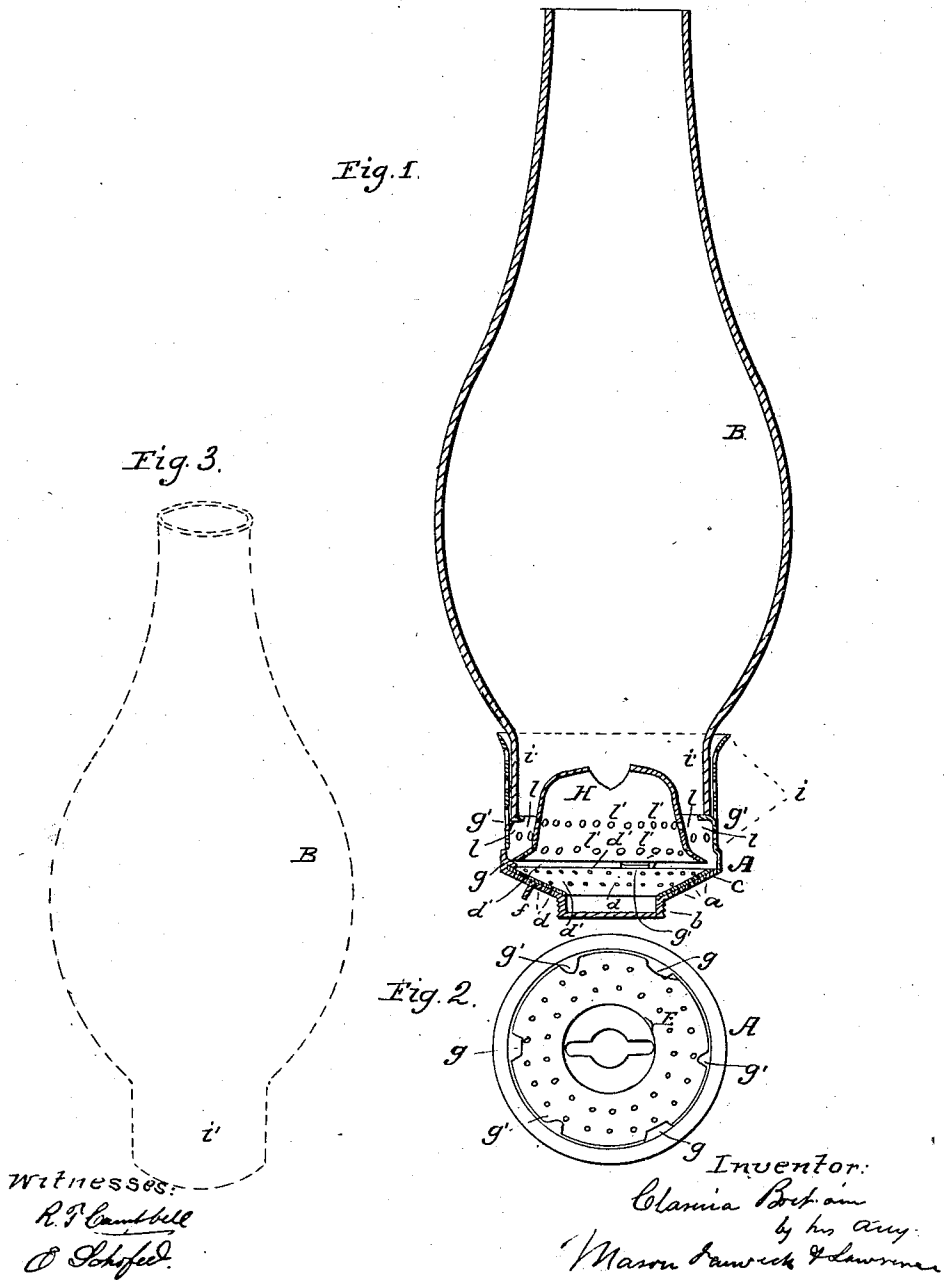


C. BRITAIN.
Lamp Burner.

No. 44,393.

Patented Sept. 27, 1864.



UNITED STATES PATENT OFFICE.

CLARISSA BRITAIN, OF ST. JOSEPH, MICHIGAN.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 44,393, dated September 27, 1861.

To all whom it may concern:

Be it known that I, CLARISSA BRITAIN, of St. Joseph, in the county of Berrien and State of Michigan, have invented a new and useful Improvement in Lamp-Burners; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, like letters in the several figures indicating the same parts, and in which drawings—

Figure 1 represents a vertical section of my improvement in lamp-burners; Fig. 2, a plan view with flame-cone removed; Fig. 3, a perspective view of the lamp-chimney.

The object of my invention is, first, to provide the means whereby the lamp-chimney may be safely retained upon the burner without the usual appliances of springs or a set-screw, which appliances are constantly liable to get out of order, and which, under the care of unskillful attendants, are liable to be so manipulated as to break the chimney or leave it insecure upon the burner and liable to fall off and so be broken; second, to provide ready means for regulating the supply of air to the lamp-flame beneath the cone; and, third, to isolate the base of the chimney from contact with the base of the cone, thereby preventing the great heat of the chimney from being directly imparted to the oil-reservoir or body of the lamp, and also permitting a draft of air from outside the burner to come directly in contact with the flame-cone, thereby cooling and tempering the same and modifying the transmission of its heat to the lamp-body or oil-reservoir. To this end I construct of a single piece of metal the lamp-burner A with a screw-threaded base, *b*, adapted to fit into the usual collar of a lamp-body. The bottom concave portion, *c*, is perforated with a series of apertures, *d*, which apertures register exactly with like apertures, *d'*, made through a valve, E, seated in the concave portion *c*, when the valve is opened fully for the admission of air to the lamp-flame. A pin, *f*, attached to the valve, projects through a longitudinal opening or slot in the portion *c*, by means of which the valve may be moved to the right or left, and so cause the apertures *d* *d'* to admit more or less air to the body of the burner, as may be required. As at *g g* lugs or projections are

made to extend from the body of the burner, the purpose of which is to sustain the flame-cone H directly over the valve E, but out of contact therewith, and as the diameter of the cone at its base is less than the diameter of the burner above the supports *g*, and as the cone is sustained within the burner upon the supports *g'*, it is apparent that the heat of the cone will be transmitted to the main portion of the burner only at the points *g* by actual contact of the parts.

Above the supports *g*, upon which the cone is seated, I construct my burner with an extended tube-gallery, *i*, of a depth sufficient to receive the extended tubular base *i'* of the lamp-chimney B, as represented in the figures.

As clearly shown in the drawings, the base *i'* of the chimney B is made to properly fit within the extended tube-gallery *i*, and be retained therein by its own gravity and the sustaining qualities of the gallery, due to its tubular or socket formation, the base of the chimney B, when inserted therein, resting upon projecting portions *g'*, cut out and turned in from the body of the gallery, as clearly shown in Fig. 1. Thus sustained upon the projections *g'*, the chimney B is entirely free from the cone H and imparts no portion of its heat thereto by means of direct contact therewith. Aside from this it will be seen that a space is left between the bottom of the chimney and the base of the flame-cone for the free circulation and admission of the air through the openings *l*, which air comes directly in contact with the cone H, thereby tempering and cooling it, whether such air passes up between the cone and the base *i'* of the chimney or directly into the cone through its perforations *l'*.

By thus constructing my lamp chimney with a tubular base and the burner with a tubular socket, I am enabled to dispense with all of the usual appliances of springs and set-screws for retaining the former in place upon the latter, thereby greatly simplifying this class of lamps, while at the same time I attain the desired security of the chimney upon the burner. For additional security to this end, a very thin band of vulcanized rubber might be applied around the tubular portion *i'* of the lamp chimney, and so at the same time in a measure give to the chimney isolation from the metal of the burner.

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

1. The elongated gallery or socket *i*, in combination with the elongated neck *i'* of the glass chimney, and the air-valve *E*, or its equivalent, substantially as and for the purpose described.

2. Supporting the cone *H* out of contact

with the body of the burner *A* upon projections *g* in the manner and for the purpose described.

Witness my hand in matter of my application for a patent for an improved lamp-burner.

CLARISSA BRITAIN.

Witnesses:

R. T. CAMPBELL,

E. SCHAFER.