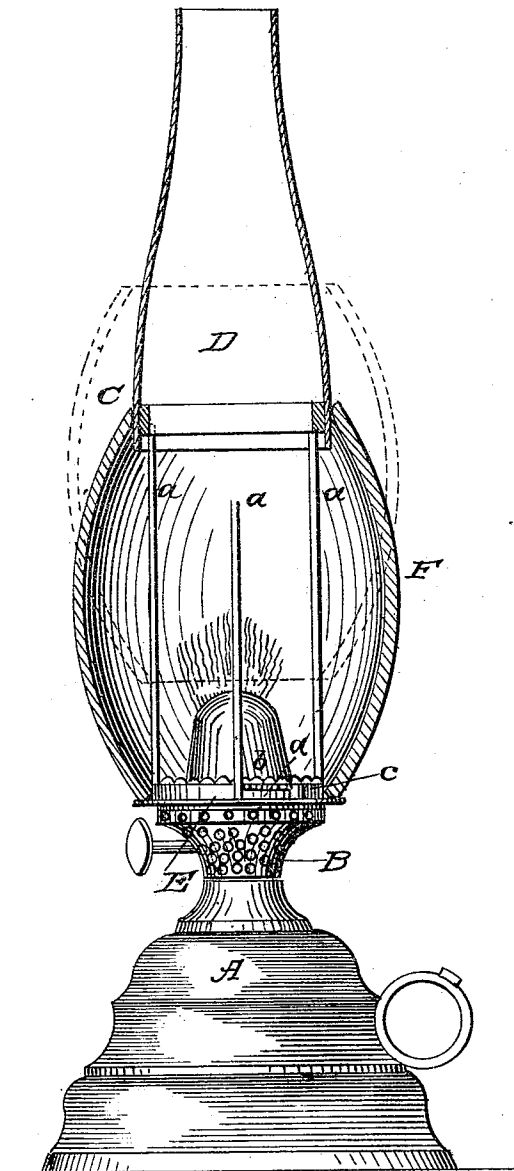


A. ALBERTSON.
Lamp Chimney.

No. 40,890.

Patented Dec. 8, 1863.



Witnesses
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ALBERT ALBERTSON, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. **40,890**, dated December 8, 1863; antedated November 26, 1863.

To all whom it may concern:

Be it know that I, ALBERT ALBERTSON, of the city, county, and State of New York, have invented a new and Improved Lamp-Chimney; 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, making a part of this specification, said drawing being a vertical central section of my invention applied to a lamp.

This invention relates to an improved lamp-chimney of that class in which glass and metal are combined, the lower part of the chimney being of glass and the upper part of metal.

The invention consists in having the upper metal part of the chimney connected by rods or standards to a metal ring or base, the whole forming a metal frame, on the exterior of which the glass portion of the chimney is fitted and arranged in such a manner as to be capable of being raised and lowered so as to render the wick accessible for lighting and trimming without removing the chimney from the burner, the glass portion of the chimney at the same time being allowed to expand freely under the heat of the flame without the liability of fracture from that cause.

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

A represents the fountain or body of a lamp, which may be constructed in any of the known forms, and B is the burner of the lamp, the kind most generally employed for coal-oil lamps. These parts being of ordinary construction do not require a minute description.

C represents the chimney of the lamp, which is composed of metal and glass, D being a metal tube, constructed of sheet metal, and of slightly taper or conical form, and secured to the upper ends of rods *a*, of which there may be three or more. These rods *a* are attached at their lower ends to a metal ring or annular base, E, the interior diameter of which is such that it may be fitted on or over the burner B, and secured thereon by any suitable means. A very good fastening may be obtained by having inclined surfaces *a*, one or more on the upper edge of the ring or base, said inclined surfaces being under a pin or pins, *b*, which pro-

ject horizontally from the burner, so that by turning the chimney the ring or base will be forced or pressed snugly down on the burner.

F represents the glass portion of the chimney, which may be of spherical, conical, cylindrical, or other proper form. A spheroidal glass is represented in the drawing. The lower end of the glass F rests upon a flange, *e*, at the lower part of the ring or base E, the upper end encompassing the lower end of the tube D, but not being attached to it in any way. The glass F by this arrangement may be readily raised so as to expose the wick of the lamp for lighting or trimming without detaching the chimney from the burner or disturbing the metal portion of the former in any way. The glass is shown in an elevated position in red outline. Another advantage of the arrangement is that the glass, being on the exterior of the metal frame, is allowed to expand freely, and without coming in contact with any of the metal parts of the chimney. Hence it will be seen that all danger of breakage from expansion under the head of the frame is fully obviated.

A fruitful source of the breakage of lamp-chimneys consists in a screw in the upper part of the burner, which, when the chimney is secured to the burner, is screwed inward over a flange at the bottom of the glass. This screw being unyielding will be sure to cause the fracture of the glass if screwed at first snugly against the former. Spring-fastenings have been employed to obviate this difficulty, but they are liable to get out of order and become useless in a short time. In my invention it will be seen that no fastening is required at the lower end of the glass F, and hence the latter cannot be broken from that cause.

I am aware that metal frames have been used with a glass cylinder fitted within them to form lamp-chimneys; but so far as I am aware none have been devised with the glass portion fitted on the exterior of the metal frame to admit of the former being raised and lowered.

A great disadvantage attending the last-named chimneys consists in the glass portion being within the frame and necessarily restricted in diameter and brought quite in close proximity to the frame, thereby render-

ing the glass liable to breakage from that cause.

It will be seen that the rods *a* should be of sufficient length to admit of a glass, *F*, of proper length being used.

The advantage of the combined metal and glass chimneys consists in the same not being liable to break in consequence of one part being heated more intensely than another. The entire glass chimneys break most generally from that cause, as the upper narrow part heats much more rapidly than the lower part.

Besides this advantage which my invention possesses in common with the others of the same kind, it possesses the advantage of not being liable to break from being restricted in expanding, and also possesses the advantage of admitting the wick being readily exposed

for trimming and lighting without removing the chimney from the burner.

I do not claim, broadly, a combined glass and metal lamp-chimney, nor a chimney composed of a metal frame and a glass bulb, sphere, or cylinder, irrespective of the arrangement herein shown and described; but

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

A lamp-chimney composed of a metal frame formed of a tube, *D*, rods *a*, and a ring or base, *E*, and a glass portion, *F*, fitted on the exterior of the metal frame in such a manner as to be capable of being raised and lowered thereon, substantially as set forth.

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