

H. BOOTH, Jr.  
Lamp Chimney.

No. 38,881.

Patented June 16, 1863.

Fig. 1

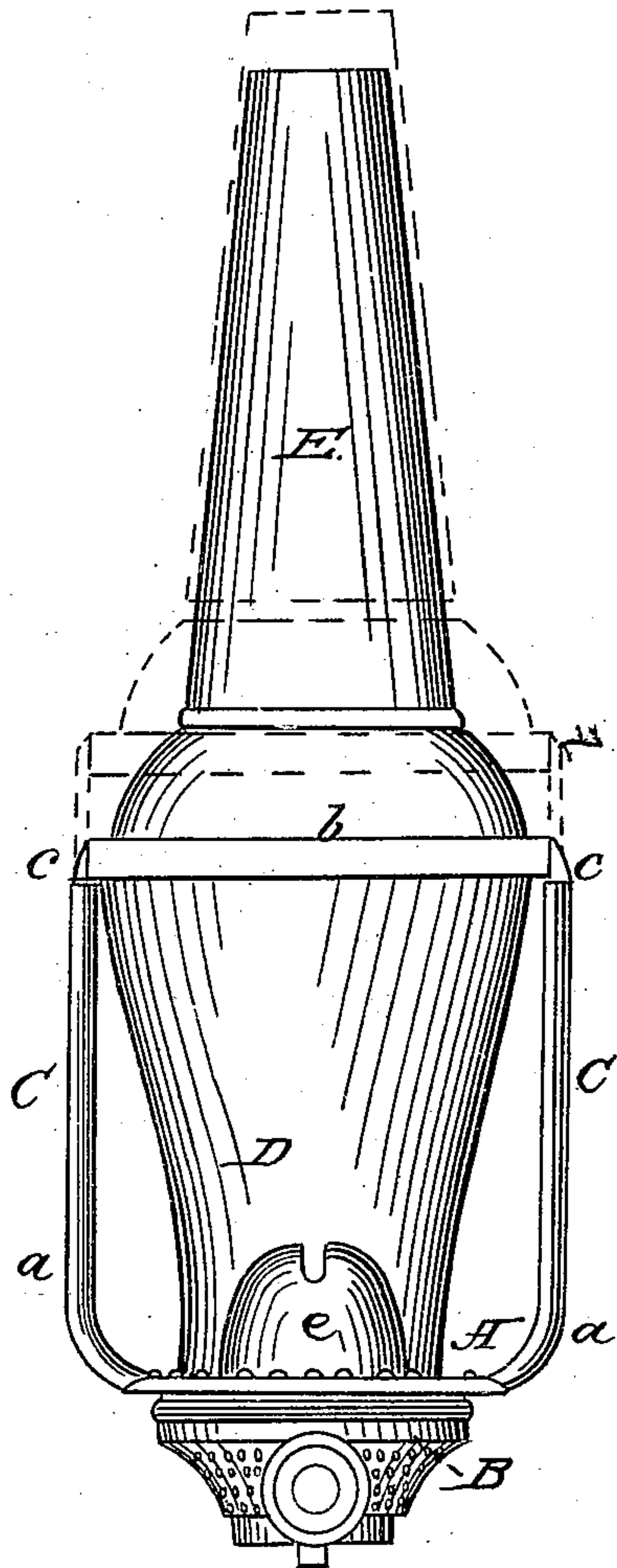
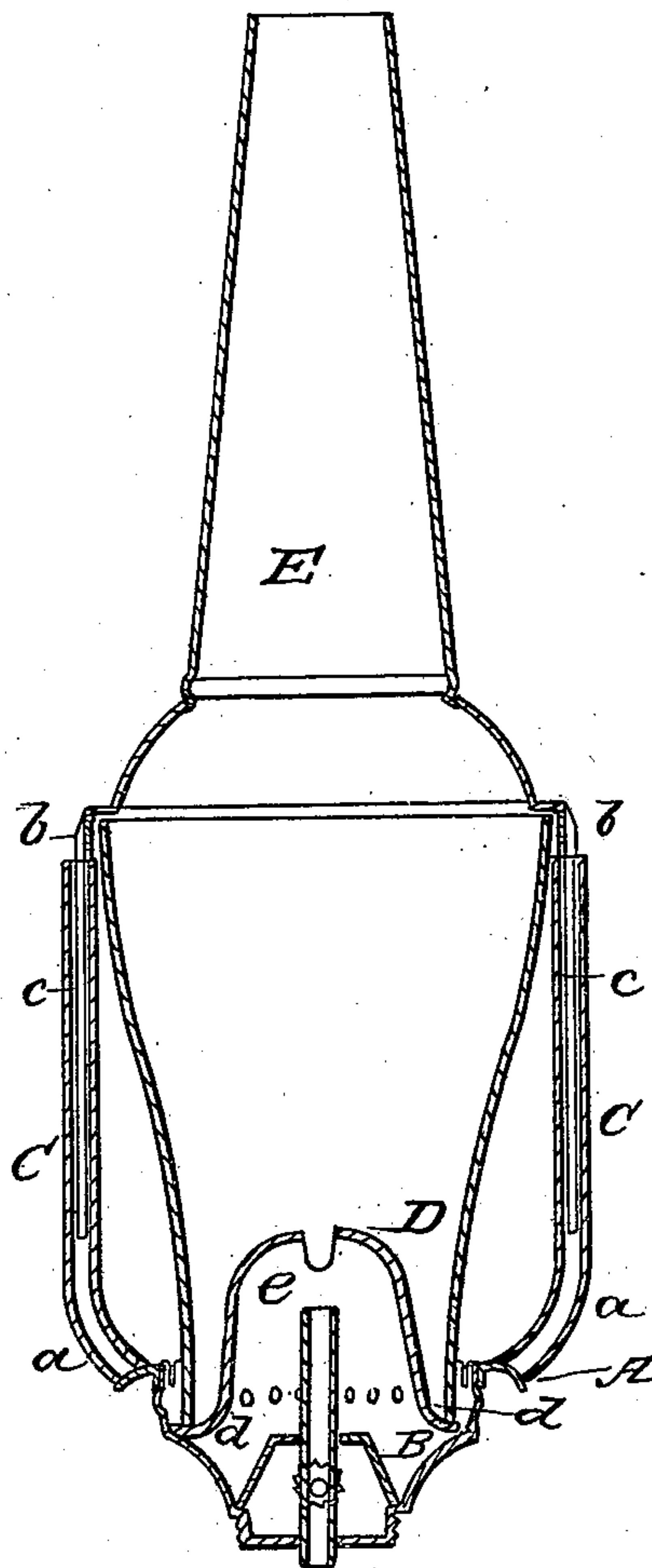


Fig. 2



witnesses  
M. J. Partidge  
Daniel Robertson

Inventor  
H. Booth, Jr.

# UNITED STATES PATENT OFFICE.

HENRY BOOTH, JR., OF NEW YORK, N. Y.

## IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. 38,881, dated June 16, 1863.

*To all whom it may concern:*

Be it known that I, HENRY BOOTH, Jr., 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 drawings, making a part of this specification, in which—

Figure 1 is an external view of my invention; Fig. 2, a vertical central section of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement in that class of lamp-chimneys which are composed of metal and glass—that is to say, of a glass bulb, cone, or cylinder, and a metal tube, the former being at the upper end of the latter.

The invention, it is believed, is an improvement over those previously devised, for the following reasons. First, the glass portion of the chimney is not attached in any way to the burner of the lamp, and consequently fracture from expansion at the lower end of the chimney is avoided, as well as the insecure connection of the chimney to the burner obtained by the various spring-catches in use; second, the metal tube portion of the burner is not permanently attached to the glass portion, but simply rests upon it, and is arranged in such a manner that it, together with the glass portion, may while connected with the burner be raised so as to expose the wick for either lighting or trimming; third, the glass portion of the chimney is allowed to expand freely both at top and bottom, and, when necessary, may be removed from the metal tube portion with the greatest facility, and as readily replaced.

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

A represents a ring or band, which is of such a diameter internally that it may be fitted snugly around the upper part of the burner B of the lamp. To this ring or band there are attached, at opposite points, two tubes, C C, the upper and main portions of

which are vertical, the lower parts being curved, as shown at *a*, so that the straight portions will be at a requisite distance from the burner to admit of the glass portion D of the chimney being of proper diameter, and capable of being fitted on the burner between the tubes.

E represents a metal tube, which forms the upper part of the chimney. This tube is of slightly conical form, its lower end being of flaring or bell form and provided with a vertical flange, *b*, the diameter of which exceeds that of the upper end of the glass portion D of the chimney. To the flange *b* of the tube E there are attached at opposite points two vertical rods, *c c*, which are of such a diameter that they may fit into the tubes C C and work freely up and down therein.

The rods *c c*, it will be seen, serve as guides for the tube E, and admit of the same being freely raised and lowered. The flange *b* of the tube fits over the upper end of the glass portion D of the chimney and holds the same in proper position on the burner B, no fastening of any kind being at the lower end of the chimney, the latter simply resting on the base *d* of the cone *e* of the burner.

From the above description it will be seen that the glass portion D of the chimney is allowed to expand freely both at its upper and lower end, and in order to light or trim the wick all that is required is simply to grasp the lower end of D and raise it with the tube E until the top of the cone *e* is exposed, (see red outline, Fig. 1,) and by raising D until its lower end is above the cone the former may be removed from the burner for cleansing. The chimney, in consequence of being attached to the burner by the fitting of the ring or band A around it, is firmly secured in position, all lifting and shaking of the chimney being avoided, and the glass portion D cannot be casually detached from the burner, as the flange *b* of the tube E secures it in its proper place. The chimney is also very compact, there being no projecting parts to interfere with a deflector or to render the lamp cumbersome or top heaving.

I do not claim, broadly, a lamp-chimney composed of a metal tube and a glass bulb,



nor do I claim a removable tube for such a chimney, irrespective of the construction and arrangement herein shown and described; but,

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

The combination of the lower glass portion, D, of the chimney with the metal tube portion E, when the latter has pendent rods *c c*

attached to it, which are fitted in tubes C C, connected to a ring or band, A, placed on the burner B, and all arranged substantially as and for the purpose herein set forth.

HY. BOOTH, JR.

Witnesses:

SAMUEL DAVISON,  
M. S. PARTRIDGE.