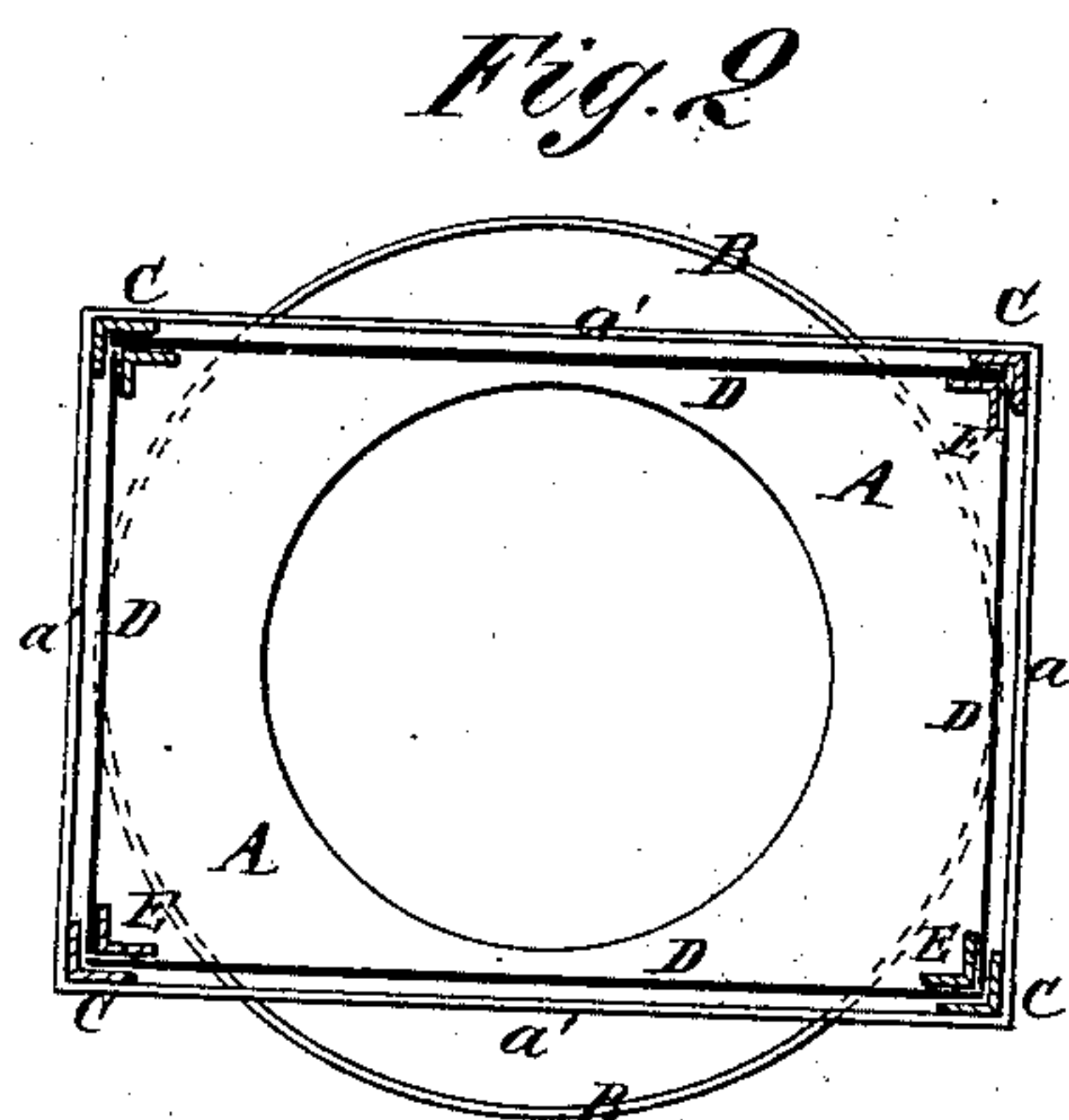
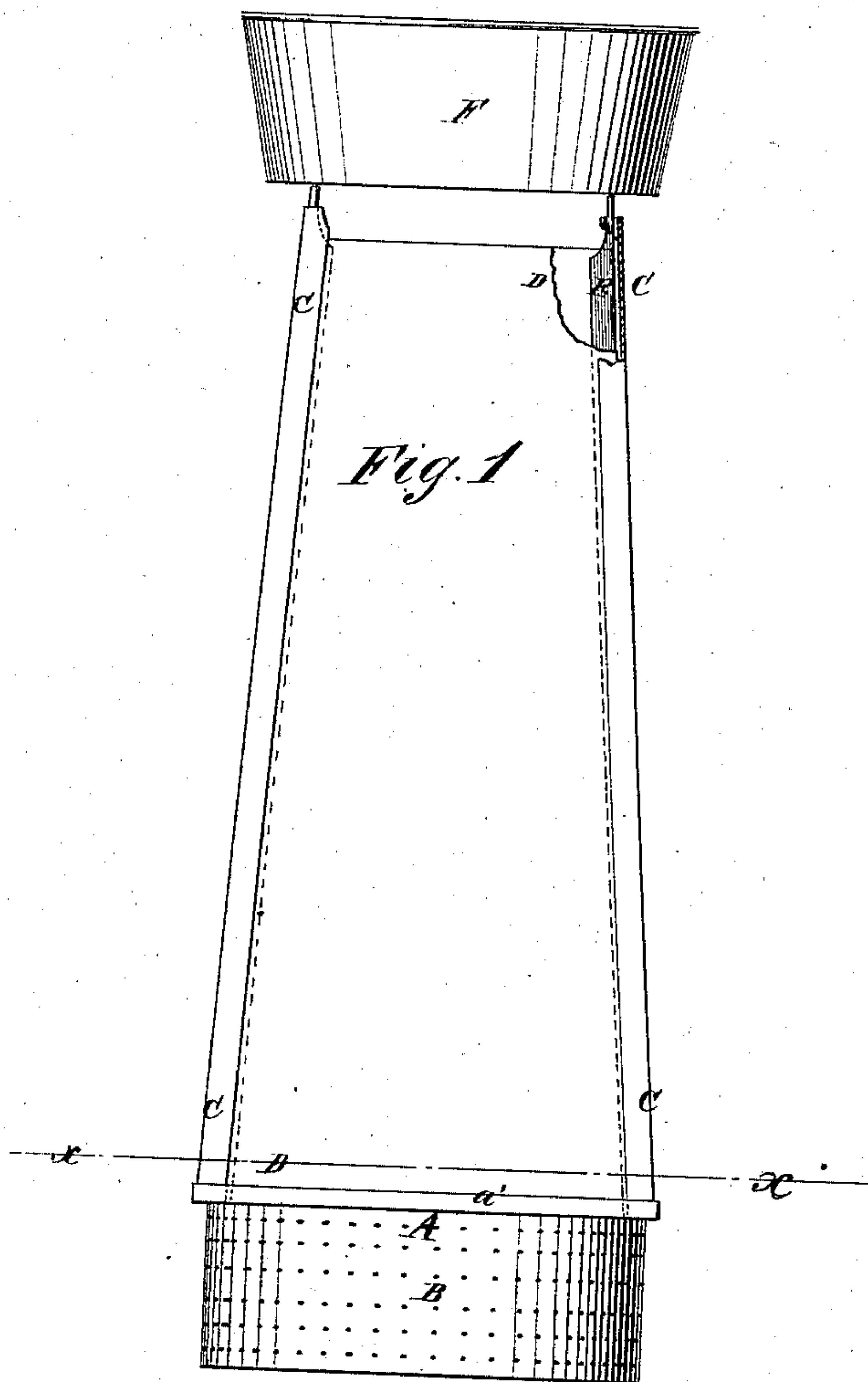


G. M. BULL.  
Lamp-Chimney.

No. 168,871.

Patented Oct. 19, 1875.



WITNESSES:

*A. W. Almqvist*  
*Gustave Dietrich*

INVENTOR:

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE M. BULL, OF NEW BALTIMORE, NEW YORK.

## IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. 168,871, dated October 19, 1875; application filed September 17, 1875.

*To all whom it may concern:*

Be it known that I, GEORGE M. BULL, of New Baltimore, in the county of Greene and State of New York, have invented a new and useful Improvement in Mica Lamp-Chimneys, of which the following is a specification:

Figure 1 is a side view of my improved lamp-chimney, part being broken away to show the construction. Fig. 2 is a horizontal section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of the mica lamp-chimney for which Letters Patent No. 122,560 were granted to me January 9, 1872, so as to make it simpler in construction, less expensive in manufacture, and more reliable in use.

The invention will first be fully described in connection with drawing, and then pointed out in the claim.

This lamp-chimney is designed to be used with the burners known as sun-burners, and with others of similar construction.

A is a rectangular plate, having a hole in its center to receive and rest upon the upper part of the cone of the burner. To the lower side of the plate A is attached the upper edge of a band, B, made of perforated sheet metal, and which is designed to rest and fit upon the burner in the same manner as the ordinary glass chimney rests and fits upon said burner. Around the edge of the plate A is formed a narrow upwardly-projecting flange, *a'*, which covers the outer side of the lower end edges of the transparent plates. C are plates of thin sheet metal, which are bent longitudinally at right angles, the lower ends of which fit into the angles of the flanges *a'* at the corners of the plate A, and which are designed to receive the side edges of the transparent plates. The upper ends of the angular strips C are inclined inward slightly, giving to the chimney the form of a truncated rectangular pyramid. D are thin sheets of mica, which are made narrower at their upper ends, to cor-

respond with the inward inclination of the angular strips C. E are strips of thin sheet metal, bent longitudinally at right angles, and the lower ends of which are rigidly attached to the corners of the plate A at such a distance from the angles of the flange *a'* as to give space for the edges of the mica sheets D, and the lower ends of the angular strips C between them and the said angles. The upper ends of the inner strips E are made round by rolling their edges together, so that they may enter sockets formed in the upper ends of the outer strips C by turning in their side edges.

With this construction the outer strips C may be readily slipped out of and into place to enable the mica plates D to be put in and taken out, as may be required.

With this construction the pairs of angle-strips C E hold the side edges of mica plates D securely, so that they are not liable to be sprung away from said edges by the heat of the flame. The upper ends of the angle-strips C E project a little above the upper edges of the mica plates D, so that a small vessel F may be placed upon them to have its contents heated without obstructing the combustion, or causing the lamp to smoke.

I thus get a rest (for the mica) that is a quarter of an inch wide, while the outside removable corner-cases bind the mica along its whole length. Under my former patent the heat spread the corner cases apart, and allowed the mica to fall, producing both trouble and inconvenience. It is true that the mica may be made thicker, and thus relieve the difficulty in a measure, but at the expense of the light.

What I claim is—

The combination, with flanged plate A *a'* and angle-strips C, of the angle-strips E, rounded at the upper ends, as and for the purpose specified.

GEORGE M. BULL.

Witnesses:

JAMES T. GRAHAM,  
JAMES H. HUNTER.