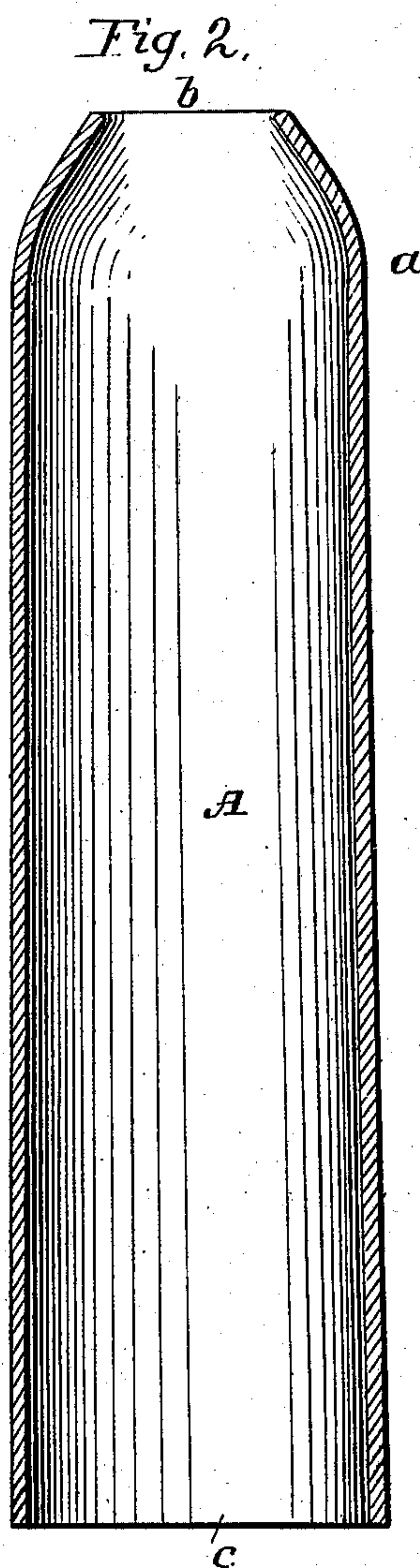
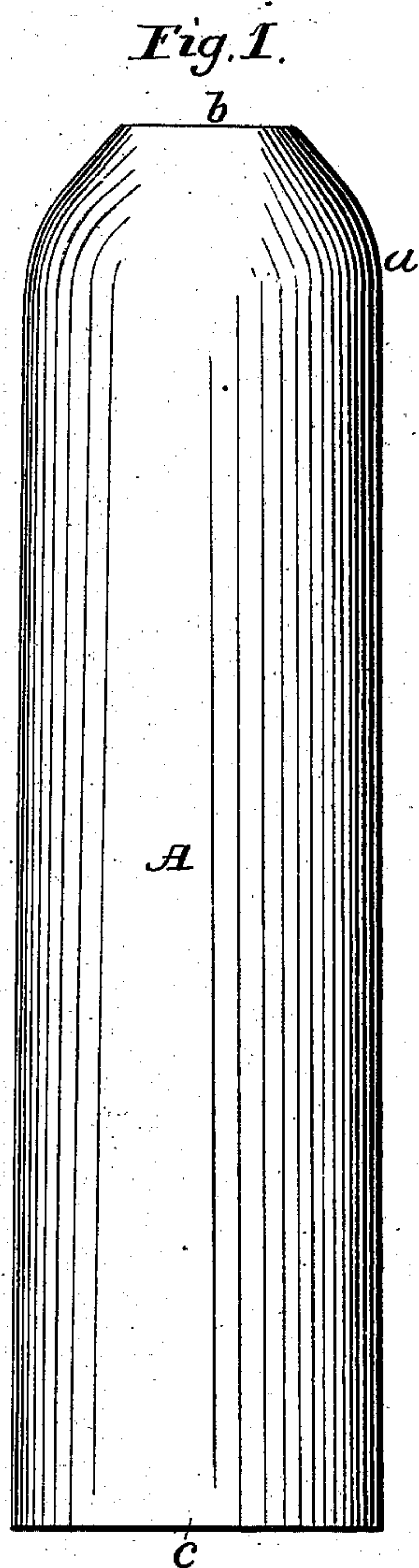


E. JONES.  
Lamp Chimney.

No. 100,637.

Patented March 8, 1870.



*Witnesses.*  
*Geo. H. Andrews*  
*Samuel A. Piper*

*Inventor:*  
*Edward Jones*  
*by his attorney*  
*R. W. Eddy*

# UNITED STATES PATENT OFFICE.

EDWARD JONES, OF SOUTH BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. **100,637**, dated March 8, 1870.

*To all whom it may concern:*

Be it known that I, EDWARD JONES, of South Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Glass Chimneys for Argand, Gas, or Lamp Burners; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a vertical section, of a chimney containing my improvement.

In order to produce the maximum amount of light, the point which requires the greatest attention is the due adjustment of the supply of air. If too much be given the gas burns with a blue feebly-luminous flame. The effect of too great a supply of air is to completely consume the gas without allowing time for the separation of carbon, and it burns with a blue feebly-luminous flame, with a loss of illuminating power.

On the other hand, the supply of air must not be too limited, otherwise the light becomes red from the reduction of temperature, the carbon passes off unburned, the oxygen being insufficient to complete the combustion, and the flame becomes smoky. The effect also of a too rapid draft is to contract the cone of luminous particles; but with a proper draft a large flame is produced, and more light is obtained. I have accomplished this

adjustment of the supply of air by contracting the upper part of the chimney to about one-half the diameter of the bottom or lower part, substantially as shown and described.

In the drawings, A denotes a chimney which is cylindrical until within about an inch of its top, it being there reduced to the frustum of a cone, as shown at *a*, whereby the mouth *b* of discharge of the chimney is reduced to a diameter about one-half of the opening *c* at the lower end of the chimney.

I have found by accurate experiments with a photometer, that with a chimney so made the light of the flame of the burner is increased about one hundred per cent. over what it would be with a glass chimney made wholly cylindrical.

The taper and proportions of the chimney may vary somewhat from those shown in the drawings without materially varying the effect of the contraction of the upper end of the chimney.

I claim as my invention—

An Argand-burner chimney, contracted at its upper part in manner and so as to reduce its mouth of discharge, substantially as described.

E. JONES.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.