

A. JUDSON.
Lamp Chimney.

No. 56,952.

Patented Aug. 7, 1866.

FIG. 1.

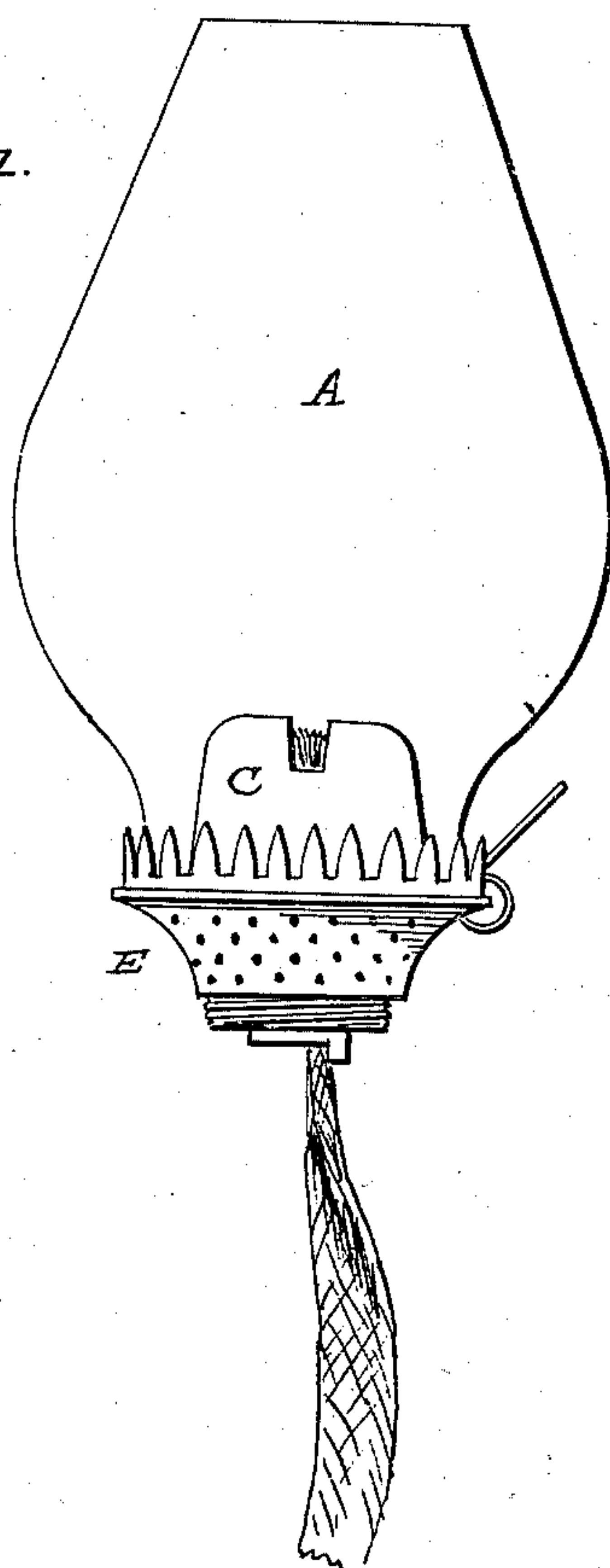
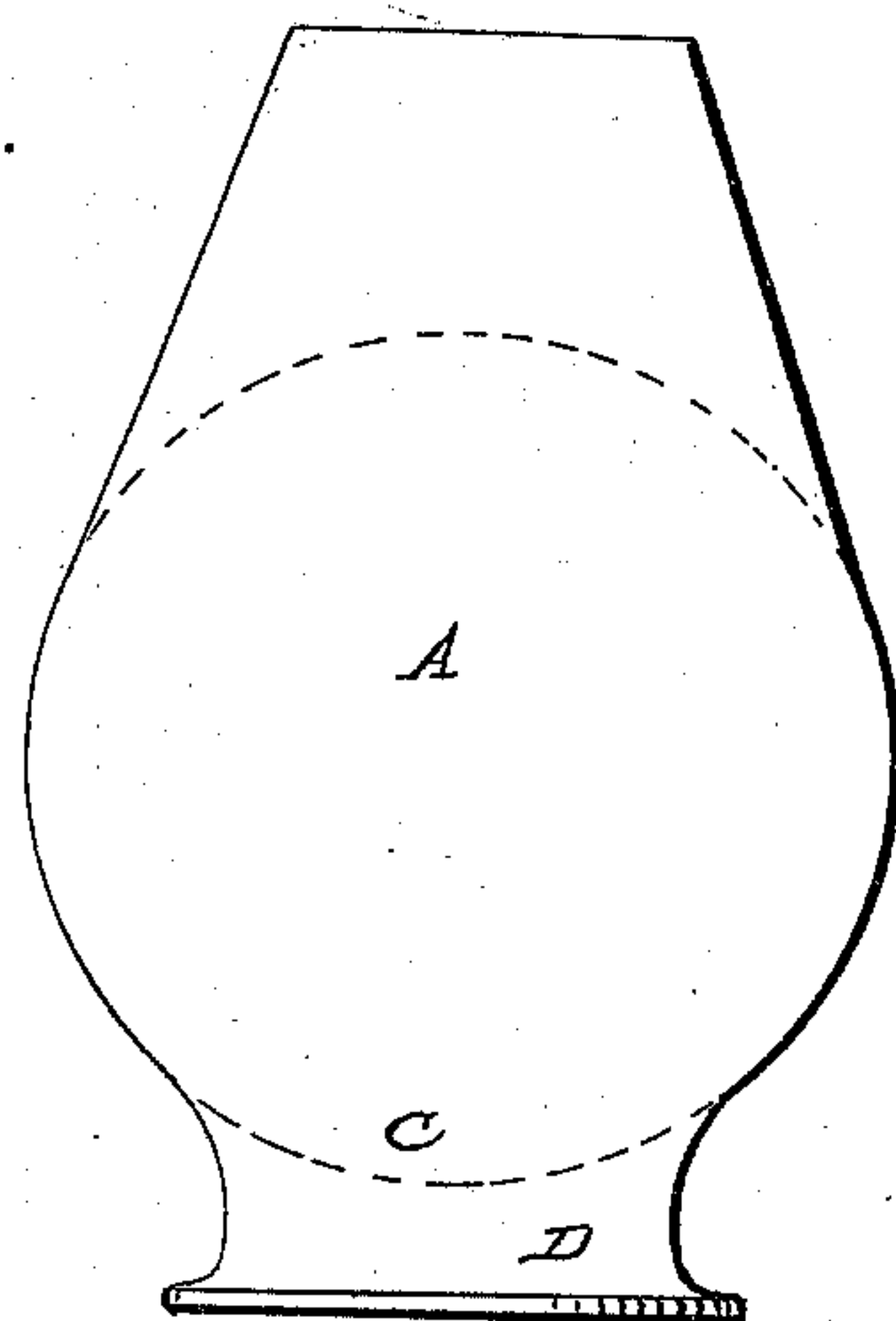


FIG. 2.



WITNESSES:

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INVENTOR.

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UNITED STATES PATENT OFFICE.

ANSON JUDSON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. 56,952, dated August 7, 1866.

To all whom it may concern:

Be it known that I, ANSON JUDSON, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Lamp-Chimneys, of which the following is a specification.

In the use of lamp-chimneys of the ordinary construction they have been found to be subject to two grave objections—namely, first, that the various forms given to them have been such as to subject them, when in use, to unequal expansion and consequent breakage; and, second, that their forms have been such as to give a draft unsuited to the production of the greatest amount of light from a given quantity of oil.

The object of my invention is to overcome these difficulties and to produce a chimney which, while it shall give the proper draft to secure, in connection with a properly-constructed burner, the most perfect illuminating combustion, shall at the same time avoid the difficulty of unequal expansion from the ordinary operation of the lamp and the breakage consequent thereon.

The construction which I have devised as best adapted to fulfill these conditions is as follows: With the exception of the neck at the lower end of the chimney, by which it is attached to the lamp, said chimney is made with the outline of a globe and truncated cone combined, the outline of the conical portion rising tangentially from the globular portion and extending from thence to the top of the chimney, the radius of the globular part being six-tenths of the distance from the center of the globular part to the top of the chimney, and the sides of the cone diverging at an angle of twenty degrees from the vertical or axial line.

In the accompanying drawings, Figure 1 is a side elevation of one of my improved lamp-chimneys made in accordance with the

said invention and adapted to a kerosene lamp burner capable of carrying a wick five-eighths of an inch in width, the chimney being represented as being attached to such a burner. Fig. 2 is a similar view of the chimney separate from the burner, the spherical form of the globular portion being marked by a circle in red.

A is a lamp-chimney, showing the proper construction, and which, to insure uniformity, should be blown in a mold. The upper part of this chimney is made as already explicitly specified. The lower part is provided with a neck, C, and lip D to attach it to the burner, said neck extending down a short distance below what would be the periphery of the sphere if extended to the center at the lower side for the purpose of raising the chimney, or, rather, the spherical portion, to the proper height with reference to the flame on an ordinary kerosene-burner. The lip D is similar to those in common use for the same purpose.

A chimney constructed as I have described so distributes the action of the heat of the flame upon it that its liability to break by unequal expansion is nearly nominal, and at the same time so controls the draft in connection with a properly-constructed burner having a large opening in the cone as to give the best illuminating effect.

I am aware of the patent granted to Joseph Ridge January 5, 1864, and I do not claim the relation between the short chimney and large orifice.

I claim as my invention—

Constructing a lamp-chimney in the form hereinabove set forth, to prevent the fracture of the chimney by the unequal exposure to heat to which other forms are subject.

ANSON JUDSON.

Witnesses:

THOS. P. HOW,

JAMES T. GRAHAM.