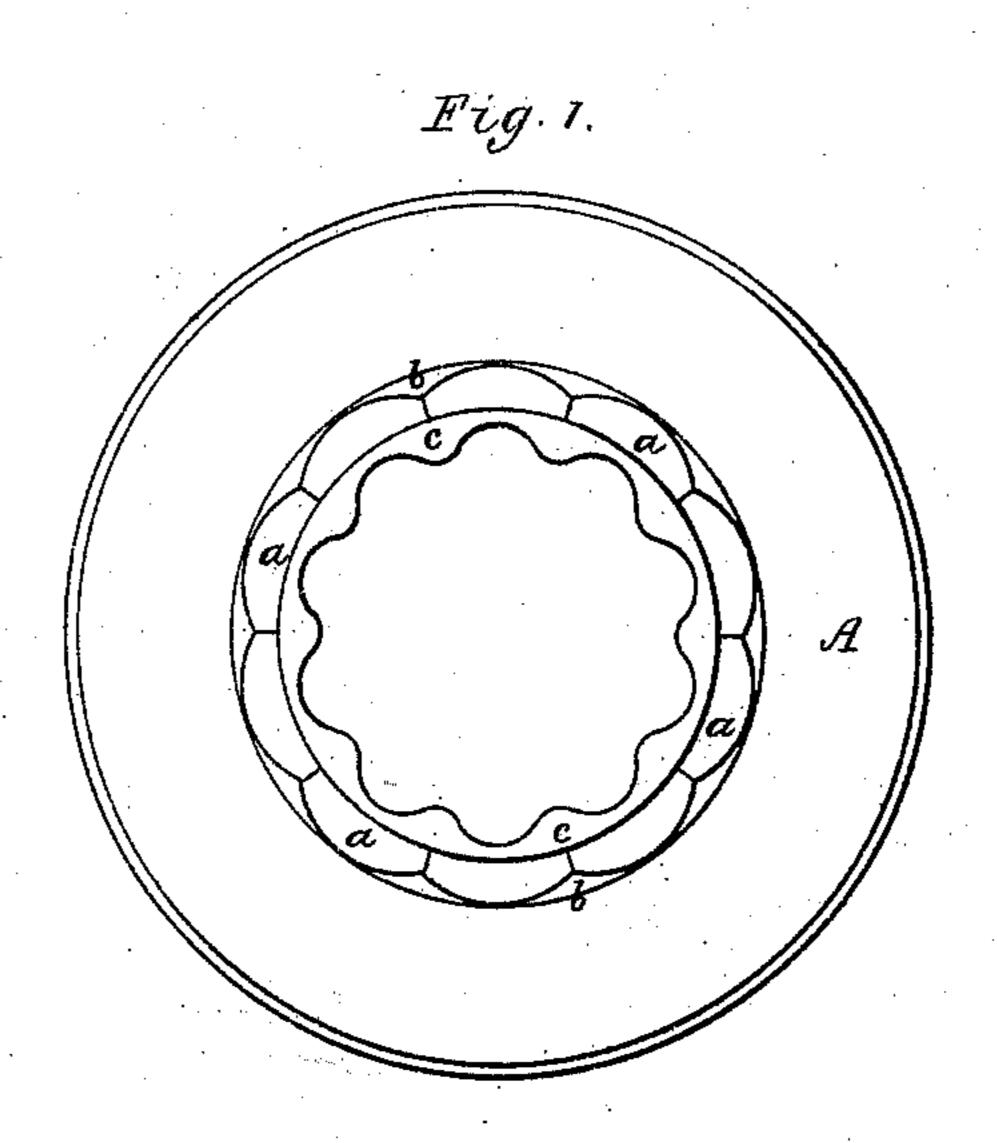
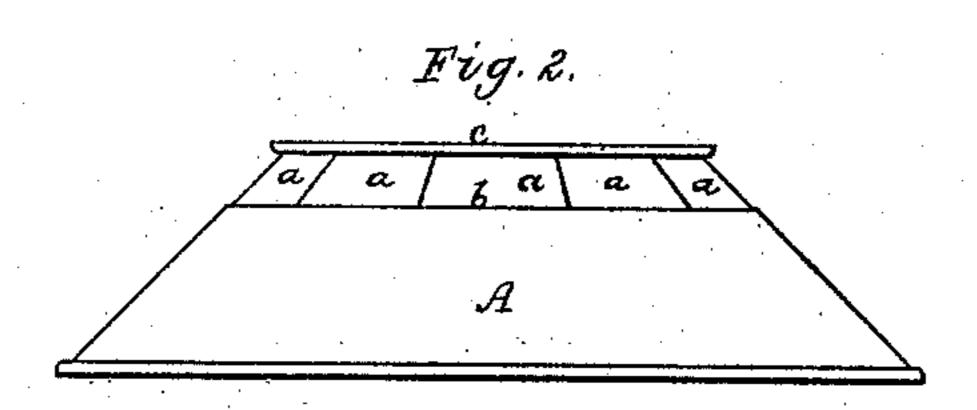
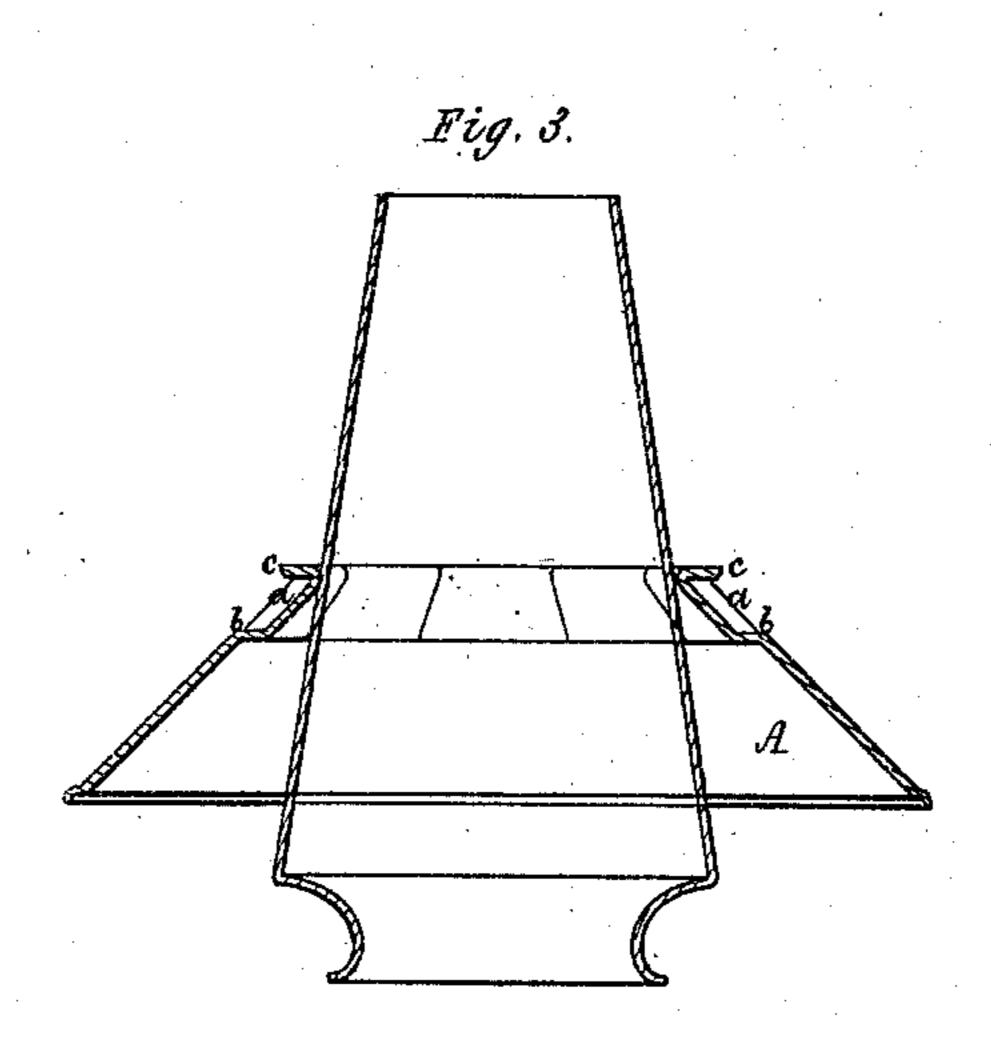
## R. R. CROSBY. LAMP-SHADES.

No. 182,563.

Patented Sept. 26, 1876.







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## UNITED STATES PATENT OFFICE.

ROBERT R. CROSBY, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN LAMP-SHADES.

Specification forming part of Letters Patent No. 182,563, dated September 26, 1876; application filed March 20, 1876.

To all whom it may concern:

Be it known that I, ROBERT R. CROSBY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Glass or Earthenware Shades for Application to Lamp-Chimneys; and I 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 top view, Fig. 2 a side elevation, and Fig. 3 a transverse section, of a shade

provided with my improvement.

This shade is intended to encompass and rest on the outer surface of a lamp-chimney, and to touch it, in a series of points only, with conduits or passages between them for the air to pass in currents between the chimney and shade, in order to keep the shade cool and prevent it from being cracked by the heat of the chimney.

In the drawings, A denotes the shade of "ground" or "frosted" glass, porcelain, or earthenware, it being a conic frustum in its general form. It has at its upper edge a series of corrugations or flutes, a a a, springing

up from a base or flange, b, and terminating at their tops in another cap-flange, c, all arranged and being as shown. Each corrugation is concave on its inner and convex on its outer surface. These corrugations are greatly strengthened by their cap and base flanges. The base-flange saves the necessity of extending the corrugations farther down upon the shade. The corrugations and the cap and base flanges, beside answering the purpose of preventing the shade from being cracked under or by the heat of the chimney, greatly strengthen the shade at its upper part.

I claim—

1. As a new manufacture, an earthenware or glass conical lamp-shade, having its upper edge or part corrugated or fluted, substantially as and for the purpose specified.

2. In a lamp-shade, the corrugations or flutes a, and base and cap flanges b c, arranged therewith, all substantially as described.

ROBERT R. CROSBY.

Witnesses:

R. H. Eddy, J. R. Snow.