

No. 616,400.

Patented Dec. 20, 1898.

R. BURGER.

REFRACTING GLOBE OR CHIMNEY FOR LAMPS.

(Application filed Jan. 21, 1898.)

(No Model.)

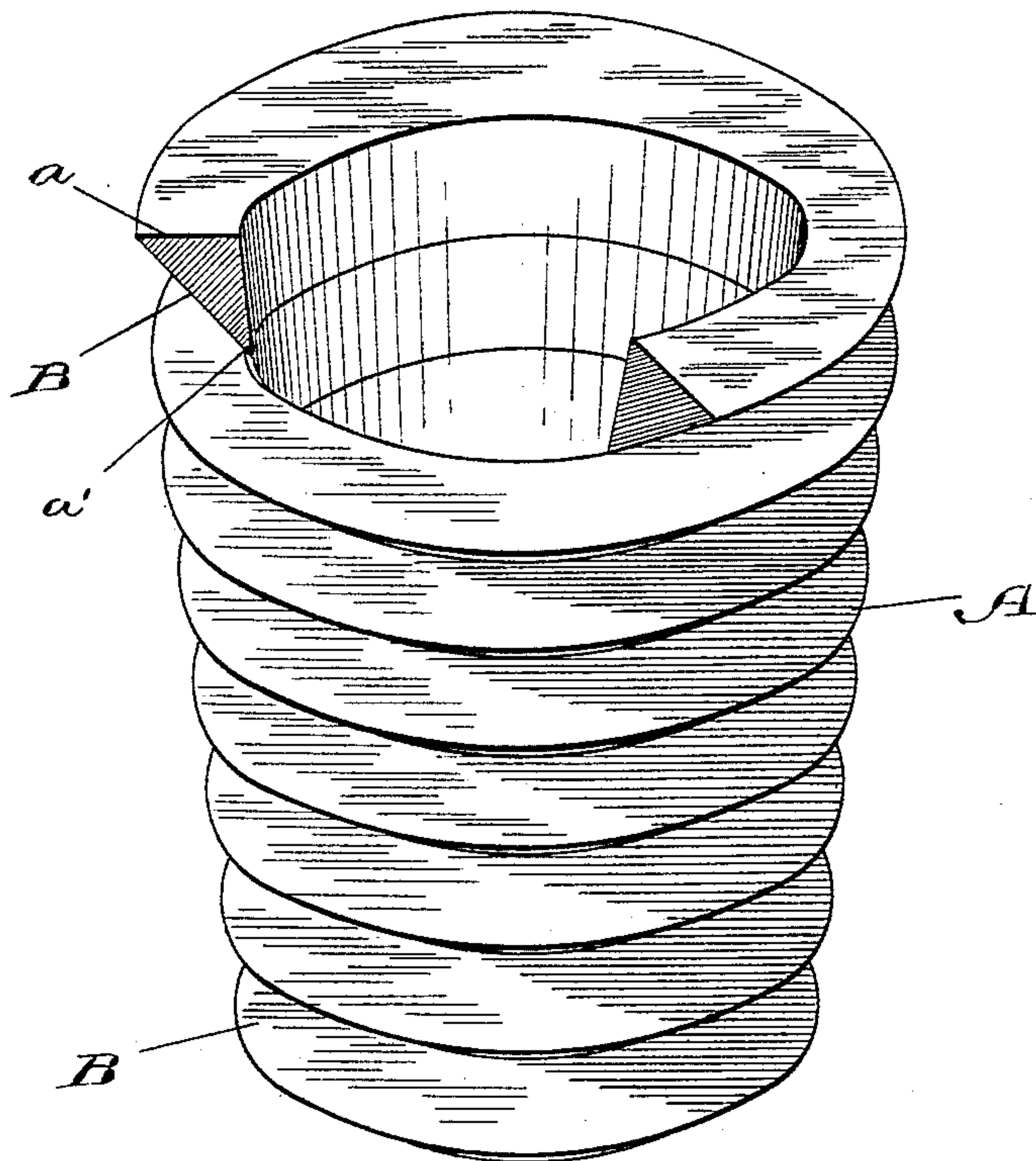


Fig. 1

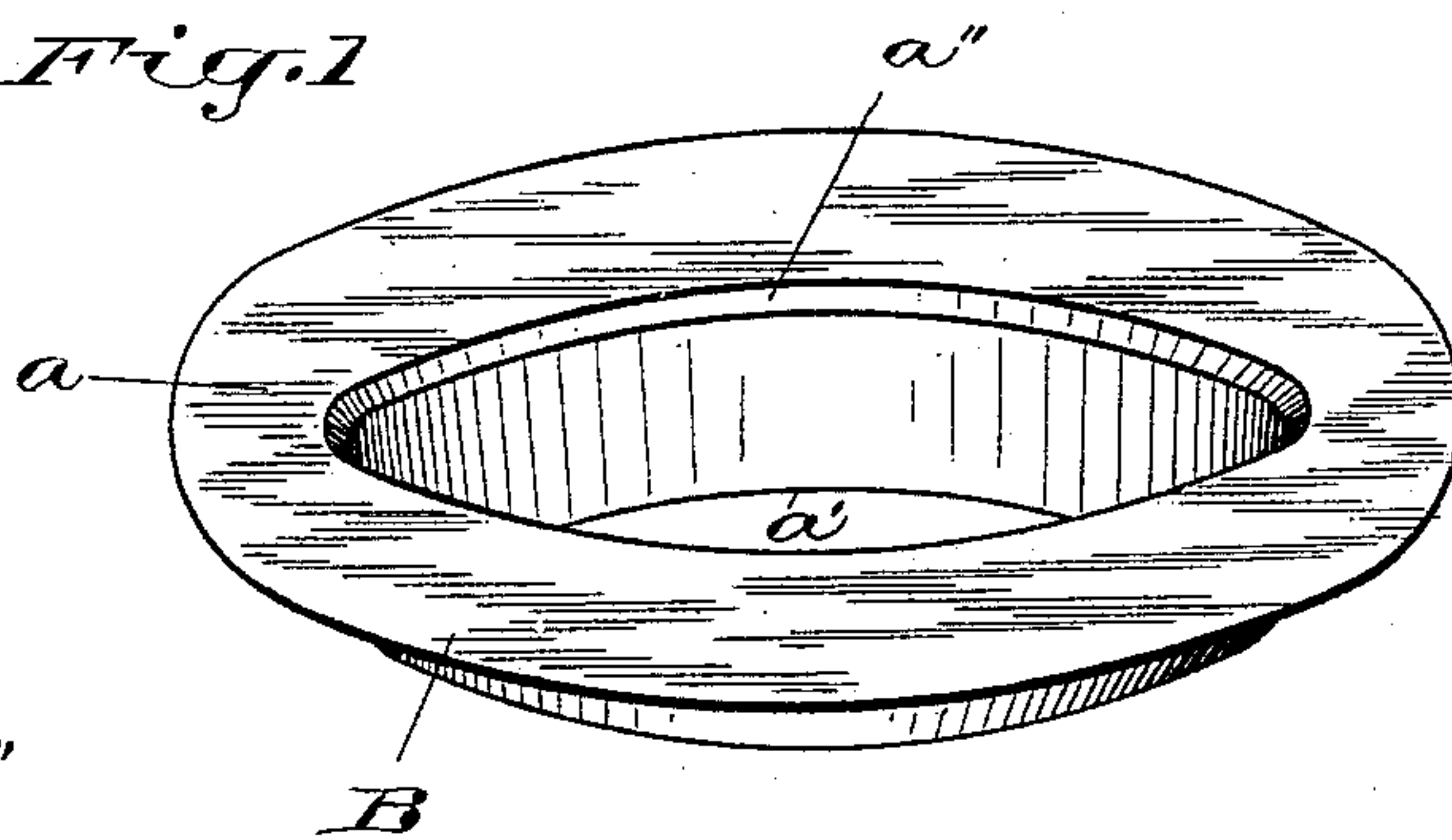


Fig. 2

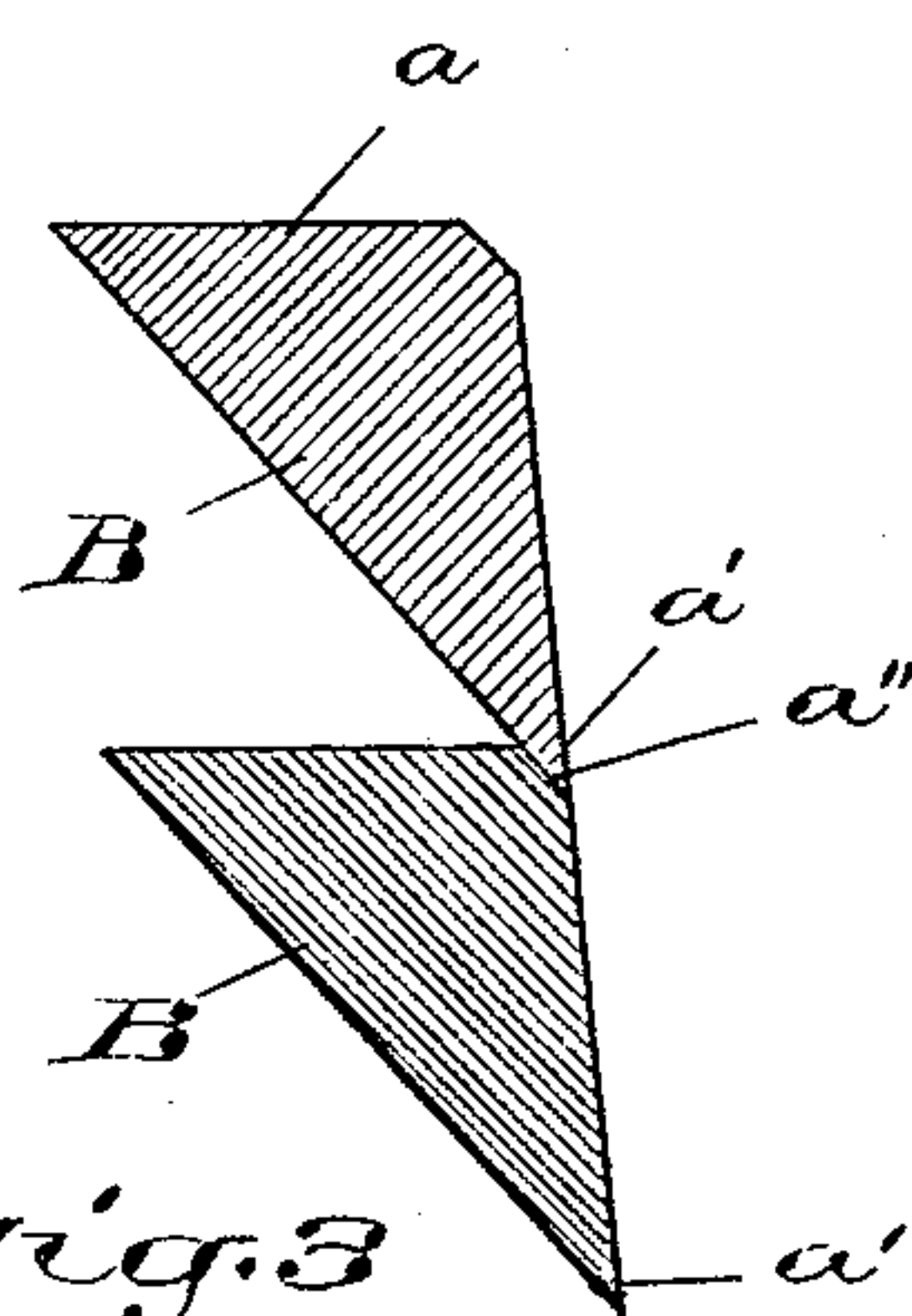


Fig. 3

Witnesses

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# UNITED STATES PATENT OFFICE.

REMY BURGER, OF TORONTO, CANADA.

## REFRACTING GLOBE OR CHIMNEY FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 616,400, dated December 20, 1898.

Application filed January 21, 1898. Serial No. 667,504. (No model.)

*To all whom it may concern:*

Be it known that I, REMY BURGER, a citizen of Switzerland, residing at Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful improvements in refracting globes or chimneys for lamps burning illuminating oils or gas, or for electric-arc lamps, or for incandescent electric lamps, or for search-lights; and I hereby declare that the following is a full, clear, and exact description of the same.

It is well known in the trade that transparent prismatic glass is a better radiator of light than common transparent glass and that when the prisms of the globe are finely polished they will intensify the light from within. It is the customary practice to make these prismatic globes of cast-glass, casting the prisms at the same time that the globe is cast. To provide for the inequalities or irregularities of the prisms and to give the globe sufficient strength to hold the prisms safely united, it has been necessary to make the globe a great deal thicker than necessary if other methods could be adopted of forming the globe. It has been impossible to polish the prisms of the globe, owing to the excessive comparative cost of the same.

It is the object, therefore, of the present invention to make a prismatic globe or chimney in such a manner that it will be comparatively light and strong and to polish each prism to a high state of transparency; and the invention consists, essentially, of making the globe of a plurality of independent annular prisms, each prism provided with a concaved seat surrounding the bore to receive the adjacent edge of the next successive prism, the bores of the prismatic rings forming a circular wall from the top to the bottom of the globe, while the edges of the prismatic rings are arranged in circular successive order on the outer face of the globe, as herein-after set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 represents a perspective view of the globe with the topmost prismatic ring partly broken away. Fig. 2 represents a perspective view of one of the prismatic rings. Fig. 3 represents a sectional view of two prismatic rings to show the method of assembling the same.

Like letters of reference refer to like parts throughout the specification and drawings.

A represents a globe or chimney which is shown in the drawings to be substantially of an inverted frusto-conical shape and composed of a plurality of concentric prismatic rings B B, arranged in successive order from the bottom to the top of the globe and increasing regularly in diameter in the same order. Each ring B is substantially triangular-shaped in cross-section and inverted—that is, with the base *a* of the triangle at the top and the apex *a'* at the bottom of the ring. The top *a* of each ring is provided with a concaved seat *a''*, surrounding the bore to receive the lower edge of the next adjacent ring, which is arranged to be inserted therein. When assembling the prismatic rings, the apex *a'* of the second ring is placed in the concaved seat *a''* of the first ring and cemented therein by any of the usual compositions employed for that purpose. The apex of the third ring is placed in the concaved seat of the second ring, and so on to the top of the globe. When the prismatic rings have been assembled to complete the globe or chimney, the walls surrounding the bore are in the same circular plane from the top to the bottom of the globe, while the outer faces of the rings present prismatic edges to radiate the light from within the bore of the globe. By making a prismatic globe or chimney in this manner it is possible to cast each ring evenly and with precision, and afterward polish it to a high state of transparency at a comparatively small cost and to easily assemble the prismatic rings in a manner to complete the globe.

I do not wish to confine myself to a globe of any particular shape nor to arranging the prismatic rings in any particular order, as I may invert the globe shown in the drawings or may make it of any other desired shape.

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

1. A refracting globe or chimney consisting of a plurality of independent concentric prismatic rings arranged in successive order, with the prismatic edges of the rings on the outer face of the globe, and the plain faces of the rings forming a continuous bore from

the top to the bottom of the globe, and one side face of each ring fitted with a concaved seat to receive the edge of the next successive ring, substantially as specified.

- 5 2. A refracting globe or chimney consisting of a plurality of independent concentric rings, assembled in successive order each substantially triangular-shaped in cross-section having a plain internal face, and a prismatic

rib or ribs molded on its outer face, and a countersunk seat in the top to receive the lower edge of the next successive ring, substantially as specified.

Toronto, January 5, A. D. 1898.

REMY BURGER.

In presence of—

M. A. WESTWOOD,  
C. H. RICHES.