

(No Model.)

J. B. DE LÉRY.

SUPPORT FOR MANTLES USED IN LIGHTING BY INCANDESCENCE.

No. 581,866.

Patented May 4, 1897.

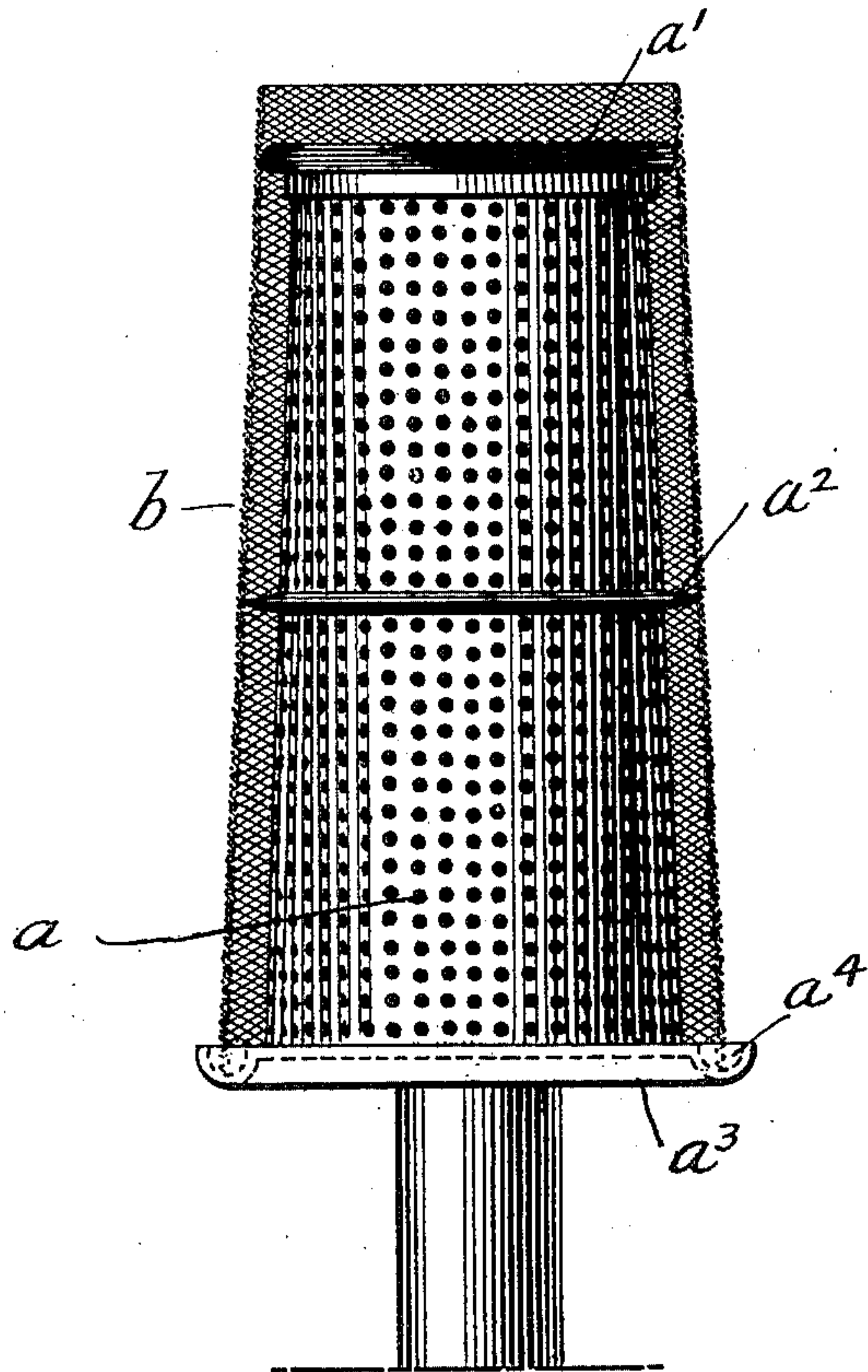


Fig. 1.

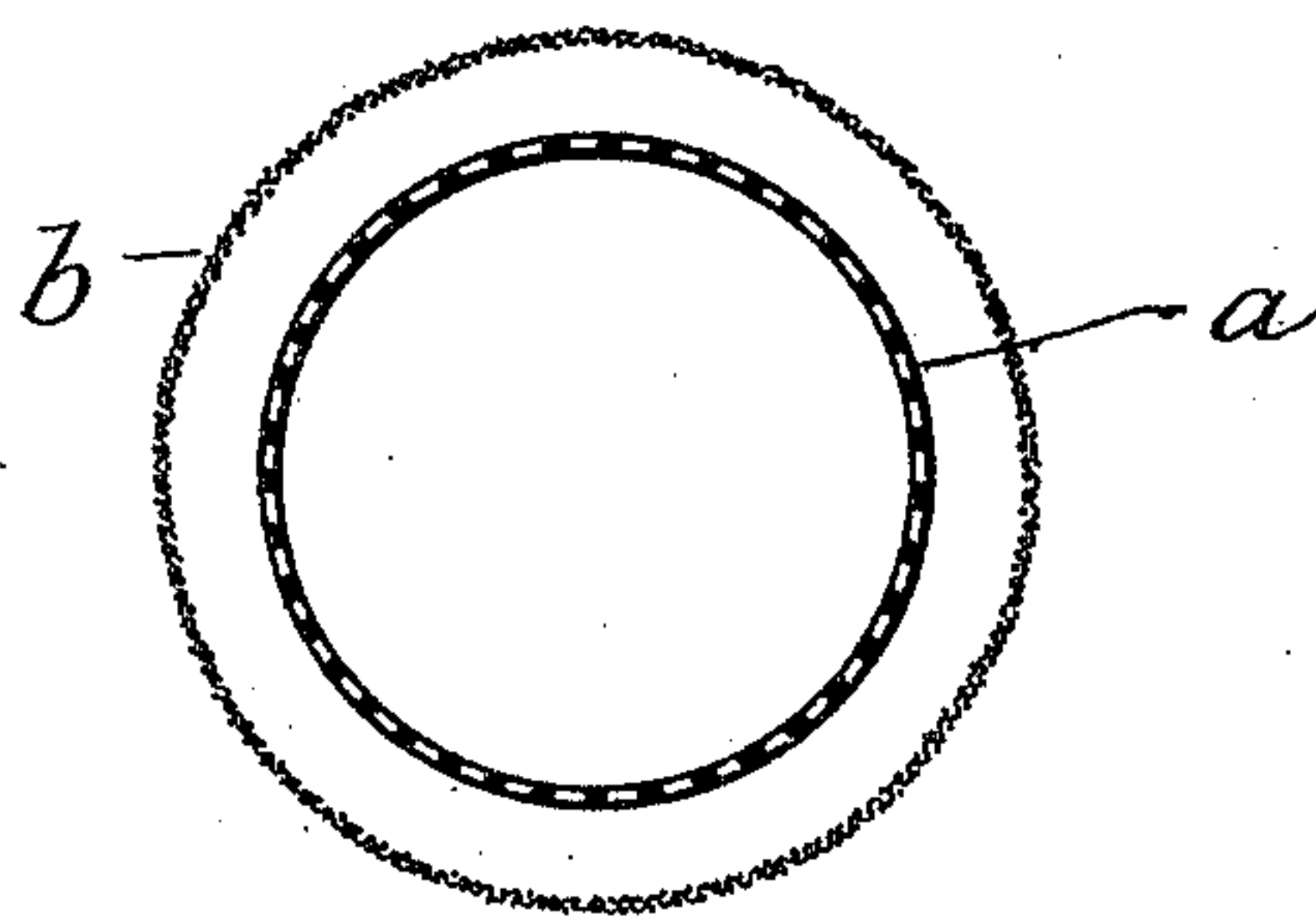


Fig. 2.

WITNESSES:

Frank D. Oliver.  
Harry Bailey.

INVENTOR

Joseph B. de Léry.

BY

Wm. H. Rosenbaum  
ATTORNEY

# UNITED STATES PATENT OFFICE.

JOSEPH B. DE LÉRY, OF NEW YORK, N. Y.

## SUPPORT FOR MANTLES USED IN LIGHTING BY INCANDESCENCE.

SPECIFICATION forming part of Letters Patent No. 581,866, dated May 4, 1897.

Application filed May 8, 1896. Serial No. 590,660. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH B. DE LÉRY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Supports for the Mantles Used in Lighting by Incandescence, of which the following is a full, clear, and exact description.

This invention relates to lighting by incandescence from gas and hydrocarbon vapors, and has special reference to means for supporting the incandescent mantles or shells and for evenly distributing the gaseous fuel thereto, whereby an even degree of incandescence is maintained throughout all parts of the mantle.

Generally stated, the support for the mantle consists of a perforated or network shield of substantially the same form as the mantle and adjusted to the gas-exit in such a manner as to form a gas-chamber above the same. The mantle is adjusted over this shield and rests in a gutter formed at the lower edge thereof, a narrow annular space being left between them. The gas entering the chamber first becomes thoroughly mixed with the air that is simultaneously admitted and then passes outward laterally through the perforations in the shield, to be burned in the presence of the incandescent mantle.

Referring to the accompanying drawings, Figure 1 is a side elevation of the shield constituting my invention, showing its position over a gas-outlet and also showing the mantle in section; and Fig. 2 is a transverse section through the mantle and shield.

The shield *a*, as shown, consists of sheet metal highly perforated with small holes and having the general shape of a mantle or shell used in lighting by incandescence—that is, conical or cylindrical. This shield, however, may be of wire woven into a mesh or lattice of any suitable fineness and may be varied in general shape to suit any preferred form of mantle. In the slightly-conical shape here shown the shield is provided with a cover-plate *a'*, having one or more holes in it to per-

mit of a slight draft and which overhangs the sides of the shield in the manner illustrated. Near the middle is a belt or flange *a*<sup>2</sup> of the same depth as the overhang at the top, and at the bottom is another flange *a*<sup>3</sup>, with a gutter *a*<sup>4</sup>. This structure is secured to the gas-outlet in any suitable manner to admit gas and atmospheric air into it.

The mantle or shell (represented by *b*) is placed over the shield and is supported thereby, a part of the weight being sustained by the flange at the top and a part by the gutter *a*<sup>4</sup>, in which it rests. The flanges keep the mantle an even distance from the shield and prevent it from touching it at any point.

This burner produces an even incandescence throughout the mantle, because the pressure of gas and its mixture with air is uniform throughout the inner chamber. The mantle cannot be shattered by blasts of gas coming through the conduit, because the gas in the chamber acts as a cushion and the perforated walls thereof prevent an excessive or sudden flow against the mantle. The shield, being a support for the mantle, dispenses with the usual suspending-cord and the arm to which it is attached.

Various modifications in the shape of the shield and mantle may be adopted without departing from the spirit of my invention.

Having thus described my invention, I claim—

The combination with a mantle or shell for lighting by incandescence, of an open-work structure inside the same and of substantially the same shape, but smaller, the mantle being supported by said structure and spacing-flanges on the outside of said structure to prevent contact between the structure and mantle, one of said flanges having a gutter in which the mantle rests.

In testimony whereof I subscribe my signature in presence of two witnesses.

JOSEPH B. DE LÉRY.

Witnesses:

WM. A. ROSENBAUM,  
FRANK S. OBER.