No. 781,613. PATENTED JAN. 31, 1905.

R. MOMAND.

MANTLE SUPPORT.

APPLICATION FILED JULY 2, 1904.

Fig. 1.

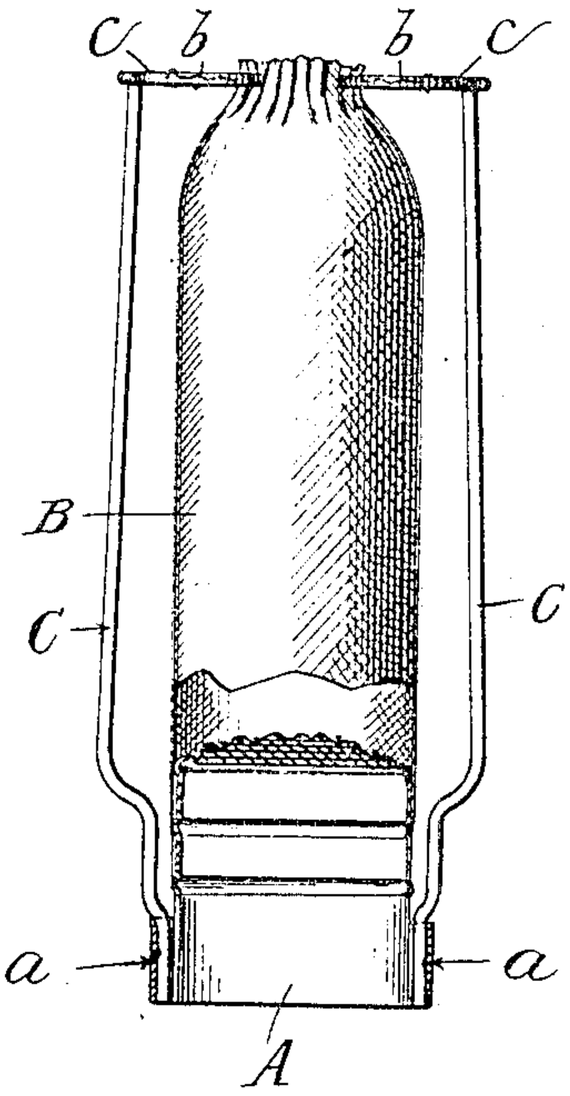
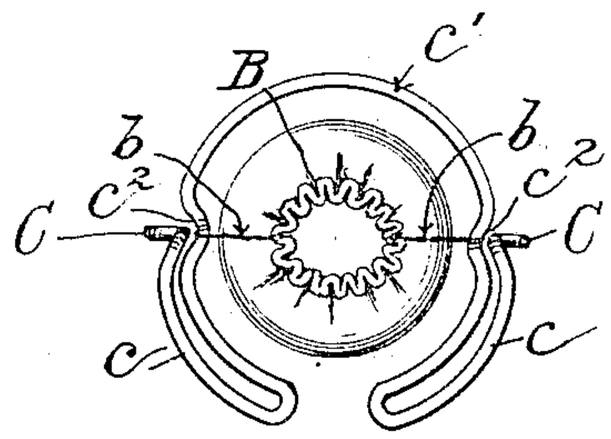


Fig. 2.



Witnesses
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No. 781,613. Patented January 31, 1905.

UNITED STATES PATENT OFFICE.

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MANTLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 781,613, dated January 31, 1905.

Application filed July 2, 1904. Serial No. 215,070.

To all whom it may concern:

Be it known that I, RAGLAND MOMAND, a citizen of the United States of America, and a resident of the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Mantle-Supports, of which the following is a specification.

This invention relates to mantle-supports for incandescent burners; and my improvement consists in the employment of a double-wire support so constructed and arranged as to maintain the mantle in a central upright position above the burner, to prevent the mantle from becoming disintegrated through external vibratory action, and further to serve as a guide and support for the mantle in packing and shipping the latter.

In brief, my invention consists of a wire having two terminal parallel strands adapted at their extremities to be socketed in the usual cap portion and at their point of junction being formed into a right-angular configuration adapted to serve as a mantle-support and extending out beyond the peripheral confines of the mantle to hold the latter out of contact with the wall of the usual packing-cylinder.

In the drawings accompanying this application, Figure 1 is a side elevation of my improved mantle-support, showing a mantle held in position above the usual cylindrical gauze-covered base; and Fig. 2 is a top plan view of said mantle-support.

The main purpose of my invention is to provide a double-wire support for a mantle for the purpose of maintaining the centralized location of the mantle above the burner and being so arranged as to prevent any part of said support from lying within the central zone of heat from the burner, whereby the life of said holder is extended.

In said figures the letter A indicates the usual cylindrical base having the socket portions *a a*, and B indicates the mantle, which is connected at its upper ends by the platinum-wire strands *b b* to the upper portion of the support. Said support consists of the parallel strands of wire or the like C C, which at their lower extremities are stepped inwardly and adapted to enter the sockets *a a*, said strands C C at their upper ends being connected by a suitable configuration arranged at right angles to said strands. Said configuration comprises a connecting portion between the strands C C and is somewhat in the shape of a double **S**. Starting from each strand C C, at right angles thereto, opposite curved formations, as *c c*, are provided, that extend into adjacent proximity, from whence they turn rearwardly and continue into a nearly circular loop, as *c'*, the material of said loop being incurved at opposite points, as at c^2 c^2, for a purpose to be referred to hereinafter. A circumferential line drawn to encompass the farthest point of the loop *c'* and the outermost points of the curved formations *c c*, comprises an area greater than the transverse sectional area of the mantle B, whereby in fitting the support carrying the mantle within the usual cylindrical case used in shipping these goods the mantle is held positively away from contact with the wall of said cylindrical casing, and can be inserted therein and removed therefrom without injury to said mantle.

The contracted upper end of the mantle B is connected to the incurved portions c^2 c^2 of the loop *c'* by means of opposite incombustible strands, as of platinum wire, the same being indicated in the drawings by the letters *b b*. The incurved portions c^2 c^2 form seats from which the connection of said incombustible strands cannot be dislodged in practice. These strands *b b* are drawn tautly and support the mantle centrally of said loop *c'*, and by reason of the flexibility of said strands and the extent of the space which they bridge between the material of the loop and the mantle said strands serve to absorb externally-induced vibrations, which are thus prevented from being communicated to the mantle, thus saving the mantle from disintegration.

The suspensory support for the mantle comprising the configuration indicated at *c c c'* may, as is evident, be modified in form without departing from the spirit of my invention, so that the configuration shown is not arbitrary, but may be changed to some other form

having the same characteristics. In any such modification it is, however, essential to retain the functions of the continuous connection between the parallel strands C C, said functions being subserved by bending or twisting the aforesaid continuous connection in such manner as to provide a guard whose circumferential points of contact with an inclosing cylindrical case are disposed beyond the diametric contour of the mantle which it supports and also wherein the points of connection for the platinum or other incombustible strands from which the mantle is suspended are located so distantly from the contracted upper end of the mantle as to allow the platinum or like suspending strands to act as a vibration-absorber.

The particular feature of my improvement resides in the fact that the double-wire mantle-support is adapted to meet the conditions above referred to, while avoiding the disposition of the intermediate portion of said support in the path of the zone of greatest heat, it being arranged circularly exterior to the mantle. By this latter means the wire composing the connecting portion between the strands C C is not effected by the intense heat emanating centrally from the burner, and its life and durability is thus enhanced.

Having now described my invention, I declare that what I claim is—

1. A mantle-support composed of a wire having parallel strands adapted to fit within opposite sockets in a circular base, the intermediate connecting material between said strands being circularly arranged exteriorly of the central zone of heat and being provided with radial points extending out beyond the diameter of a supported mantle to prevent contact of the latter with the wall of an inclosing cylindrical casing.

2. A mantle-support composed of a wire having parallel strands adapted to fit within opposite sockets in a circular base, the intermediate connecting material between said strands being circularly formed and provided with radial points extending out beyond the diameter of a supported mantle, and incombustible strands stretching from distant points of said circular formation to the contracted end of a mantle to non-vibratingly suspend the latter within the support.

Signed at New York this 22d day of June, 1904.

RAGLAND MOMAND.

Witnesses:
F. W. Barker,
R. A. Etherson.