

(No Model.)

2 Sheets—Sheet 1.

C. SMALLWOOD.

SPARK ARRESTER FOR ELECTRIC ARC LAMPS.

No. 479,994.

Patented Aug. 2, 1892.

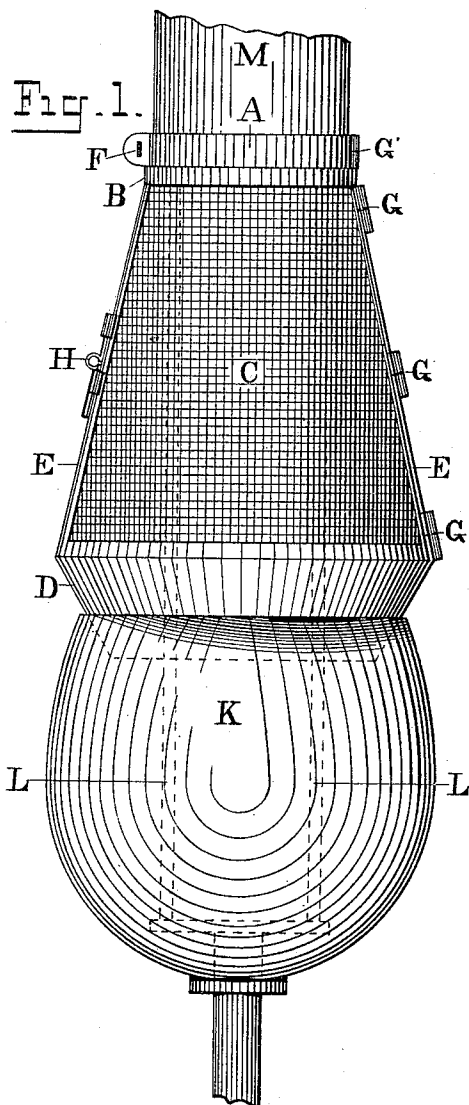


Fig. 2.

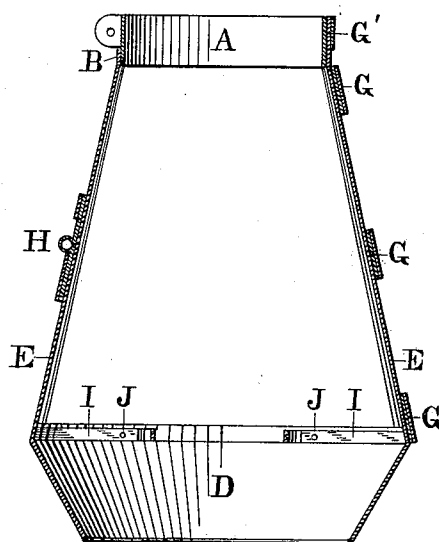
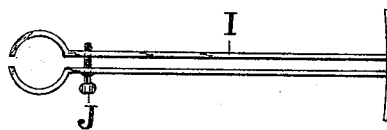


Fig. 3.



Witnesses
H. Alber
R. A. McAdory

Inventor
Charles Smallwood
By his Attorney P. Byrne

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2 Sheets—Sheet 2.

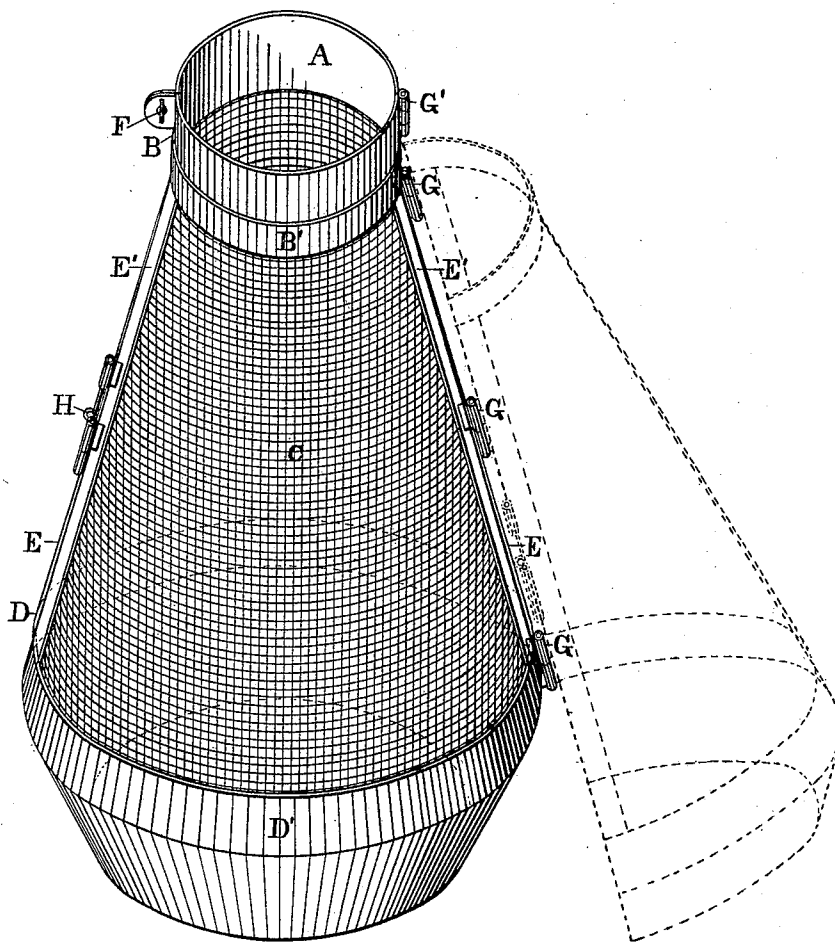
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Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES SMALLWOOD, OF BIRMINGHAM, ALABAMA.

SPARK-ARRESTER FOR ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 479,994, dated August 2, 1892.

Application filed December 26, 1891. Serial No. 416,103. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SMALLWOOD, a citizen of the United States, and a resident of Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Spark-Arresters for Electric Arc Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in a spark-arrester for electric-arc lamps; and the object of my improvements is to make a spark-arrester that can be easily secured to the lamp or taken off and will make a perfect and close joint at both top and bottom with the lamp, so that it is impossible for any sparks to escape. The tapering metallic band on the bottom, projecting down on the inside of the globe, insures the falling of all sparks that fly and strike the arrester, to fall or roll down on the inside of the lamp. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of the spark-arrester secured to the lamp. Fig. 2 is a sectional view of the frame of the spark-arrester. Fig. 3 is a detail plan view of the braces or clamps.

Similar letters refer to similar parts throughout the several views.

A refers to a band made of sheet-iron or other metallic substance. It is provided with a hinge G' on one side, on which it freely opens, and when closed is secured on the opposite side by the thumb-screw F, the frame consisting of the upper part B, formed to a half-circle, the vertical side pieces E E, and bottom part D, formed to a half-circle, with an inwardly-projecting taper on its lower edge, made of sheet-iron or other metallic substance, and the frame, having gauze or wire-netting C secured on its inside and when made forming one-half of a cylinder, is firmly secured to the band A for half of its circumference, extending on one side of the band from the hinge to the opening. On the inside of the

frame D are secured the braces I I, made of any suitable metallic substance in two parts to clasp the suspension-rods L L of the lamp, and when secured with the thumb-screws J J, as shown, secure the bottom of the frame to the lamp. The door, consisting of the frame B', the vertical sides E' E', and the bottom part D', with inwardly-projecting taper on its lower edge, is made in the same manner as the above described and has gauze or wire-netting C'. On the vertical side frame E and on the corresponding side frame E' of the door are secured the hinges G G G, on which the door freely swings. On the opposite vertical frame E' of the door are secured the loops in which slides the bolt H, made of wire, and on the corresponding frame E is secured a like loop. When the door is closed and the wire bolt slips down to engage in the loop on the frame E, it secures the door to place and keeps it closed.

To place the arrester on the lamp, the globe is lowered and the arrester opened on its hinges and the band A closed and secured on the casing of the lamp by the thumb-screw F. The braces are then secured to the suspension-rods by the thumb-screws J J. The door is then closed and secured by the catch H and the globe elevated to place, with the rim against the outside of the metallic frame D. To trim or put new carbons in the lamp, it is only necessary to lower the globe, open the door of the arrester, and when finished close door and elevate the globe to place again.

I am aware that prior to my invention spark-arresters have been used on electric-arc lamps made with metallic frame and gauze or wire-netting; but I consider them defective as not making a close joint to the globe and allowing the sparks to escape on the outside of the globe. I therefore do not claim such a combination, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a spark-arrester for electric lamps, the combination of the metallic frame with inwardly-projecting taper bottom having gauze or wire-netting on the inside, said frame

secured to one-half of the band A and having at its bottom the braces I I, with thumb-screws J J, substantially as described.

2. In a spark-arrester for electric lamps,
5 the combination of a metallic frame with inwardly-projecting taper bottom and gauze or wire-netting, said frame secured to a metallic band and having a door made with metallic frame and inwardly-projecting taper bottom

and gauze or wire-netting, said door having 10 hinges on one side and a bolt on the opposite side, substantially as described.

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

CHAS. SMALLWOOD.

Witnesses:

F. M. FRAZIER,
GEO. W. WEST.