

(No Model.)

H. B. SHERIDAN.

ELECTRIC LAMP.

No. 253,116.

Patented Jan. 31, 1882.

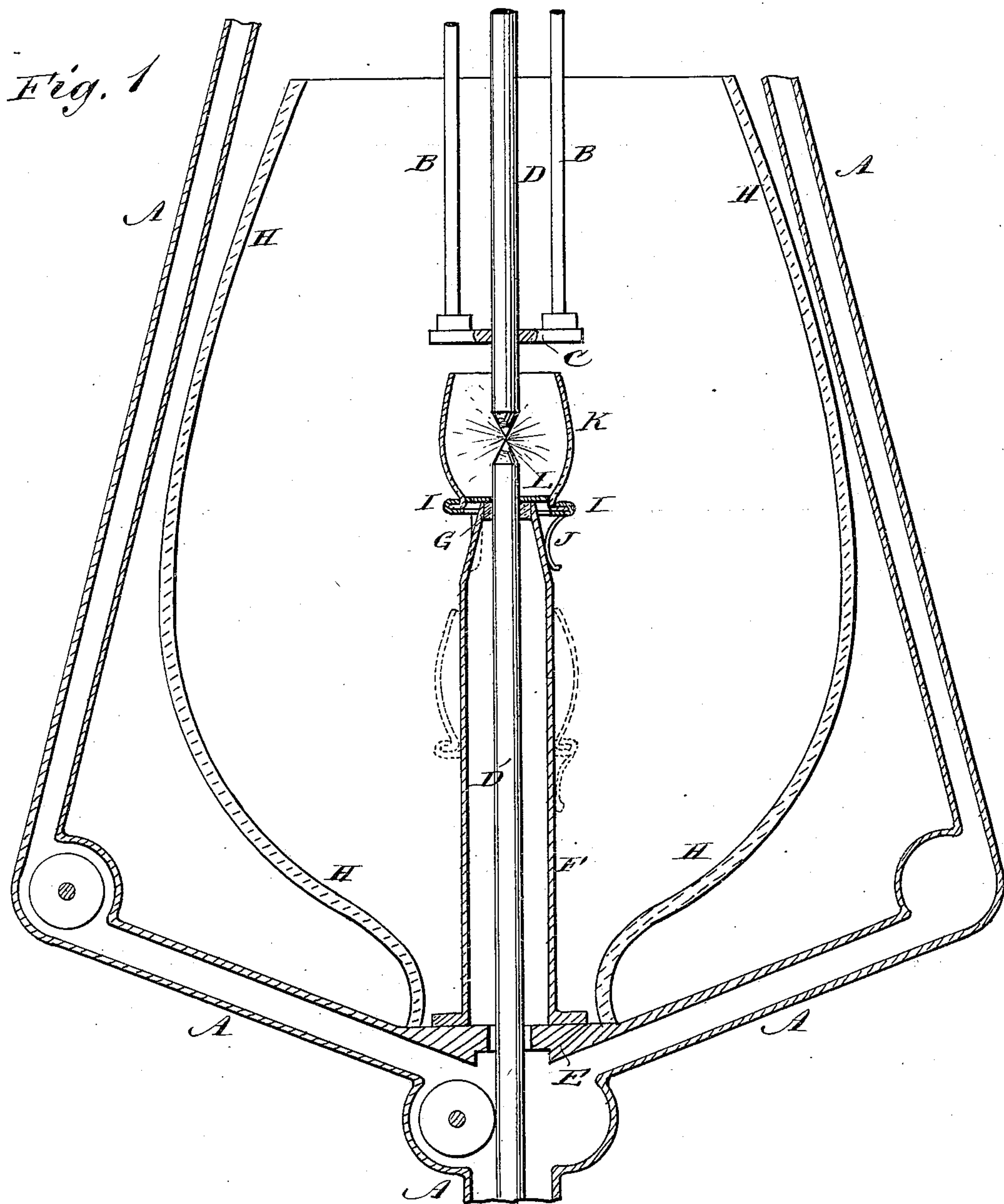
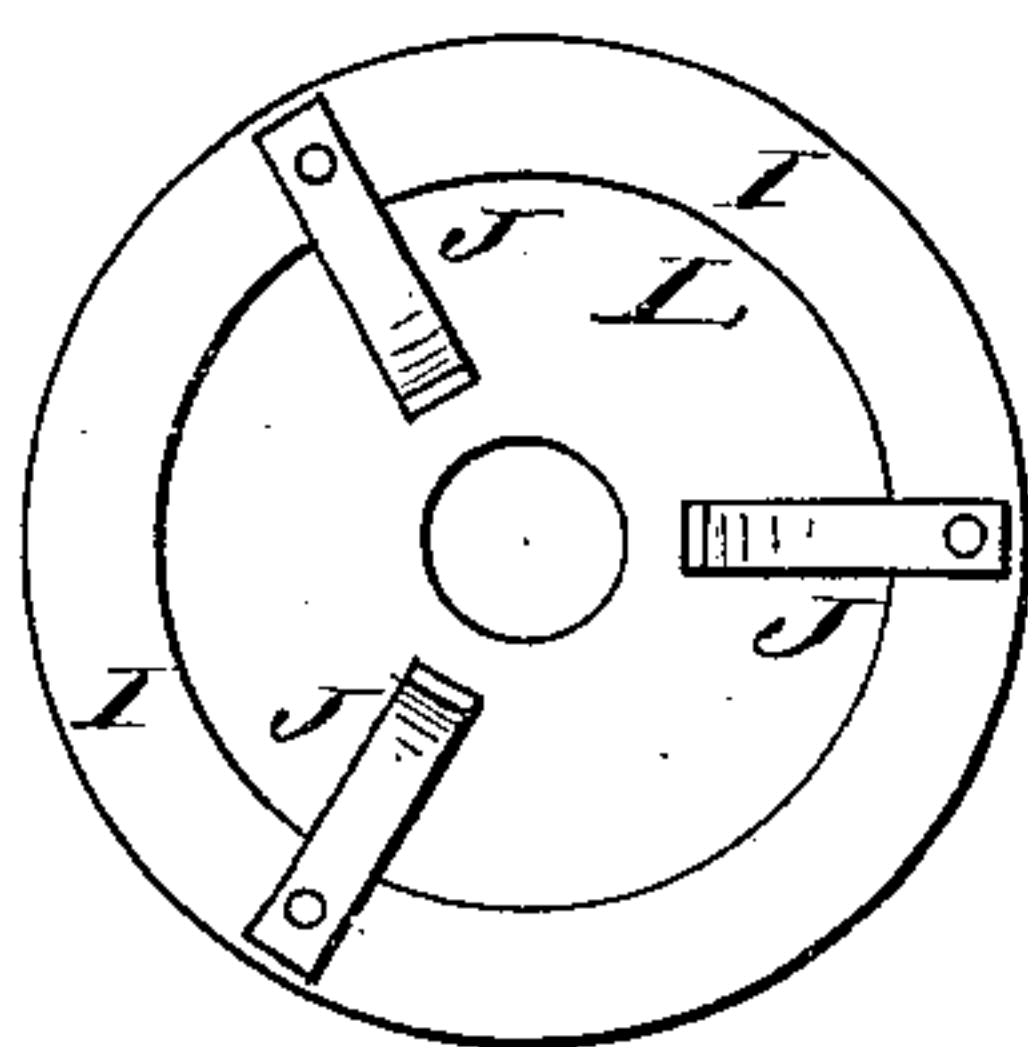


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY B. SHERIDAN, OF CLEVELAND, OHIO.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 253,116, dated January 31, 1882.

Application filed October 26, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY BRINSLEY SHERIDAN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Electric Lamps, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional elevation of my improvement. Fig. 2 is an under side view of the globe-holder and its plate.

In the class of electric lamps employing the electric arc as a source of light, a common cause of flickering or unsteadiness in the light is the fluctuation of the electric arc by drafts of air. The aim of my invention is to prevent the flickering due to this cause, and thereby avoid the principal objection to the arc-lamp.

In carrying out my invention I surround the arc and adjacent points of the carbon rods with a small transparent globe provided with a movable support and capable of being closed at the bottom sufficiently to prevent a circulation of air in the region of the electric arc.

In the drawings, A is the frame that supports the lower-carbon holder and the chain and conducting-wire connected with it. The carbon-holders and the chain and conducting-wires are omitted in the drawings, as they form no part of my present invention.

The lower ends of the rods B, which guide the upper carbon, D, are connected by a plate, C, which has a hole formed through it for the passage of the upper carbon, D, so that the carbon may move down through it in a vertical line.

The globe-holding plate E, attached to or formed upon the frame A, has a hole formed through its center for the passage of the lower carbon, D', and to it is attached the lower end of a tube, F, through which the lower carbon, D', passes. The upper end of the tube F is tapered, and has a fillet, G, through which the lower carbon, D', passes in a vertical line. The ordinary globe, H, rests upon the plate E.

I is an annular support for the small globe K, the globe and its support both being made of such a size as to slip up and down the tube F.

To the lower side of the annular support I are attached three or more springs, J, which

press against the sides of the tube F, and when the support I is raised the springs J rest upon the conical upper part of the tube F, thus holding the annular support I in place.

The globe K is of sufficient size to inclose the adjacent points of the two carbons D D'. To give access to the points of the carbons when required, the globe K and its support are made large enough to be moved down on the tube F away from the points of the carbon.

L is a plate fitting into the lower part of the globe K to close it at the bottom, and having a hole through its center for the passage of the carbon D'. The plate L prevents air from entering the globe K through the bottom.

With this construction the small globe K confines the air surrounding the voltaic arc so that the flicker of the light will be avoided. This globe also prevents the flame of the voltaic arc from being affected by currents of air within the larger globe H.

Another advantage of this improvement is that the small globe K prevents the ashes formed by the combustion of the carbons from settling in the lower part of the large globe.

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

1. An electric-arc lamp having a small adjustable globe with a closed bottom and open top arranged within a larger globe and surrounding the adjacent points of the carbon, substantially as shown and described, whereby a circulation of air in the region of the arc is prevented and the flicker of the light avoided, as set forth.

2. In an electric lamp, the combination, with the tube F, having tapered upper end and surrounding the lower carbon, of the annular support I, provided with springs J, and the globe K, provided with the plate L, substantially as and for the purpose set forth.

3. In an electric lamp, the combination, with the carbons D D' and the tube F, having its upper end tapered and provided with the fillet G, of the annular support I, provided with the springs J, the globe K, and the apertured plate L, substantially as and for the purpose set forth.

HENRY B. SHERIDAN.

Witnesses:

JAMES T. GRAHAM,
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