(No Model.)

E. THOMSON.

ELECTRIC ARC LAMP.

No. 303,762. Patented Aug. 19, 1884.

Fig. 1.

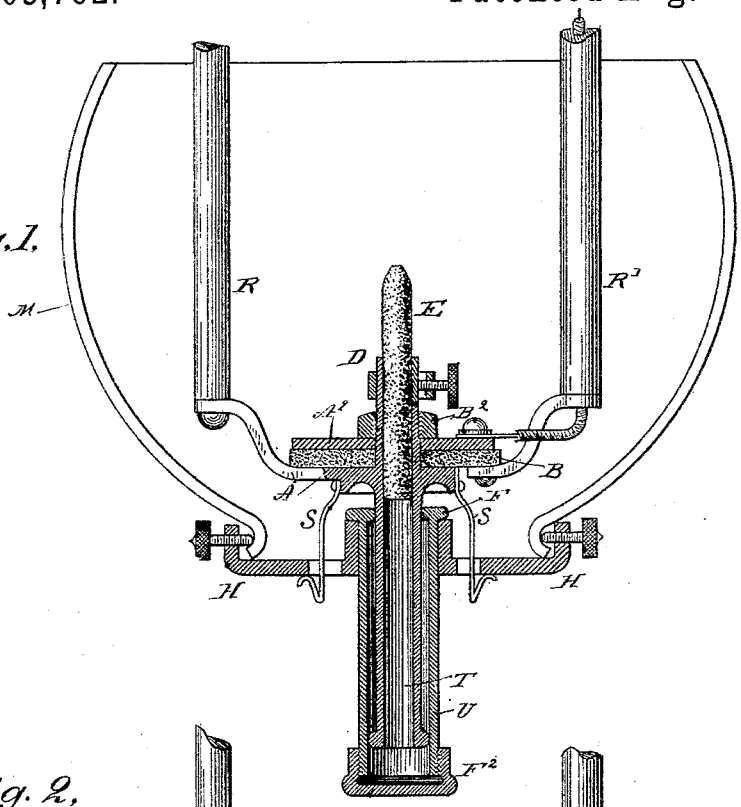
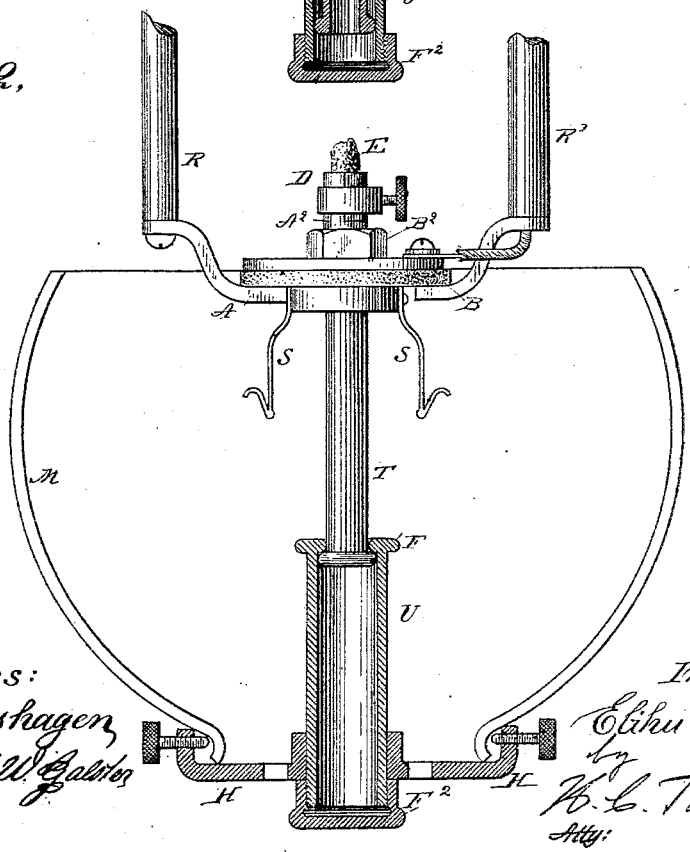


Fig. 2.



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UNITED STATES PATENT OFFICE.

ELIHU THOMSON, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE THOMSON-HOUSTON ELECTRIC COMPANY, OF CONNECTICUT.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 303,762, dated August 19, 1884.

Application filed February 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, ELIHU THOMSON, a citizen of the United States, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Electric-Arc Lamps, of which the following is a specification.

My invention relates to the means for supporting the globe for an electric-arc lamp; and its object is to provide a simple and effective supporting device, whereby the globe may be lowered out of the way to permit ready access to the carbon-holders in recarbonizing the lamp.

A further design of the invention is to make a simple and effective provision for this purpose without adding unduly to the length of the lamp.

My invention consists, briefly speaking, in mounting the globe-holder on a telescopic extension-support depending from beneath the support for the lower or negative carbon, which support may be held up or closed by suitable catches or locking devices, so that the globe shall surround the carbons, and the parts shall be closed together and out of the way, or may be extended or drawn out to lower the globe below the plane of the carbons.

My invention consists, also, in certain details of construction and combinations of parts designed to simplify the construction, which will be specifically stated in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 shows in vertical section a globe-support constructed in accordance with my invention, the globe being in normal position and the parts closed. Fig. 2 shows in vertical section the same parts extended or drawn out and the globe supported in a lowered position.

R R′ indicate the usual side rods or supports for the lower or negative carbon of an electric-arc lamp. Said rods are united at their lower end by a cross-piece of any desired construction, by which the lower-carbon holder clamp is carried.

D indicates the carbon holder or clamp mounted upon or forming an extension from a plate, A, attached to rod R.

B indicates a plate of insulating material clamped between plate A and a conducting-plate, A^2, by means of a nut, B^2, that screws upon the tubular extension from the plate A. An arm from rod R′ is attached to the insulating-plate B, and assists in supporting the parts. Electrical connection from the lower carbon is made by an insulated conductor clamped to plate A^2, and carried through the hollow side rod, R′, or by other suitable or usual means.

M indicates the globe, and H the globe-holder, which latter is in Fig. 1 shown supported by spring-catches S, or other device attached to the plate A or to other suitable parts. The globe-holder H slides upon a tube, U, which latter is provided at its opposite ends with the flanges or heads F F^2, with which the sliding globe-holder engages, either to raise and hold the tube U in the position shown in Fig. 1, or to lower said tube into the position shown in Fig. 2. In the latter position the holder is supported by the flange F^2, which is preferably screwed upon the end of the tube, or otherwise suitably attached, so as to be removable, and thus permit of the removal of the globe-holder and globe. The tube U works upon a second tube, T, after the manner of a section of telescopic tube, and tube T is formed with or suitably supported from the plate A, and depends from the latter, as shown. The parts as thus constructed and arranged form a telescope-extension device, which, without adding materially to the normal length of the lamp, permit the globe to be lowered and supported in the position shown in Fig. 2. The tube T is made hollow to form a socket or tube for the carbon. Said tube might obviously be solid at its lower portion.

I do not limit myself to the particular form or shape of the parts T U, the essence of the invention consisting in making such parts work upon one another, after the manner of the sections of a telescope-tube. In the position of the parts shown in Fig. 2 the tube U is supported by the flange on the end of T, while the globe-holder is supported at the lower end of U by the removable flange or head F^2. When the holder is raised, it engages with

the flange on the upper end of U, thus raising the latter and closing the parts together.

Other catches or locking devices might be used in place of spring-catches S.

What I claim as my invention is—

1. The combination, in an electric-arc lamp, of a telescope-extension device depending from the parts supporting the lower carbon, and a globe-holder carried by said extension device, as and for the purpose described.

2. The combination, in an electric-arc lamp, of a globe-holder, and a tube or guide upon which said holder may slide, said tube working, after the manner of a section of telescope-tube, upon a tube or extension from the parts carrying the lower or negative carbon.

3. The combination, in an electric-arc lamp, of the depending tube or support T, a second tube telescoping therewith, and a globe-holder sliding on the latter tube between flanges or heads at opposite ends thereof, as and for the purpose described.

4. The combination, in an electric-arc lamp, of a globe-holder sliding on a telescope-tube support, and a removable flange or head at the lower end of the section upon which the globe-holder works.

5. The combination, in an electric-arc lamp, of a plate or support for the lower carbon, a downwardly-extending tube depending therefrom, a tube working on the same, after the manner of a section of telescope-tube, and a globe guided on the latter tube and adapted to slide up and down on the same between heads or flanges, as and for the purpose described.

6. The combination, in an electric-arc lamp, of the plate A, a downwardly-extending tube, a tube, T, working on said tube, a globe-holder guided on tube T, and catches carried by the plate and engaging with the holder.

7. The combination, in an electric-arc lamp, of a globe-holder, H, two or more sections of telescope-tube upon which said holder works, and means for supporting said holder in proper position with the telescope-tubing closed.

Signed at Lynn, in the county of Essex and State of Massachusetts, this 20th day of February, A. D. 1884.

ELIHU THOMSON.

Witnesses:
GEO. CUTTER,
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