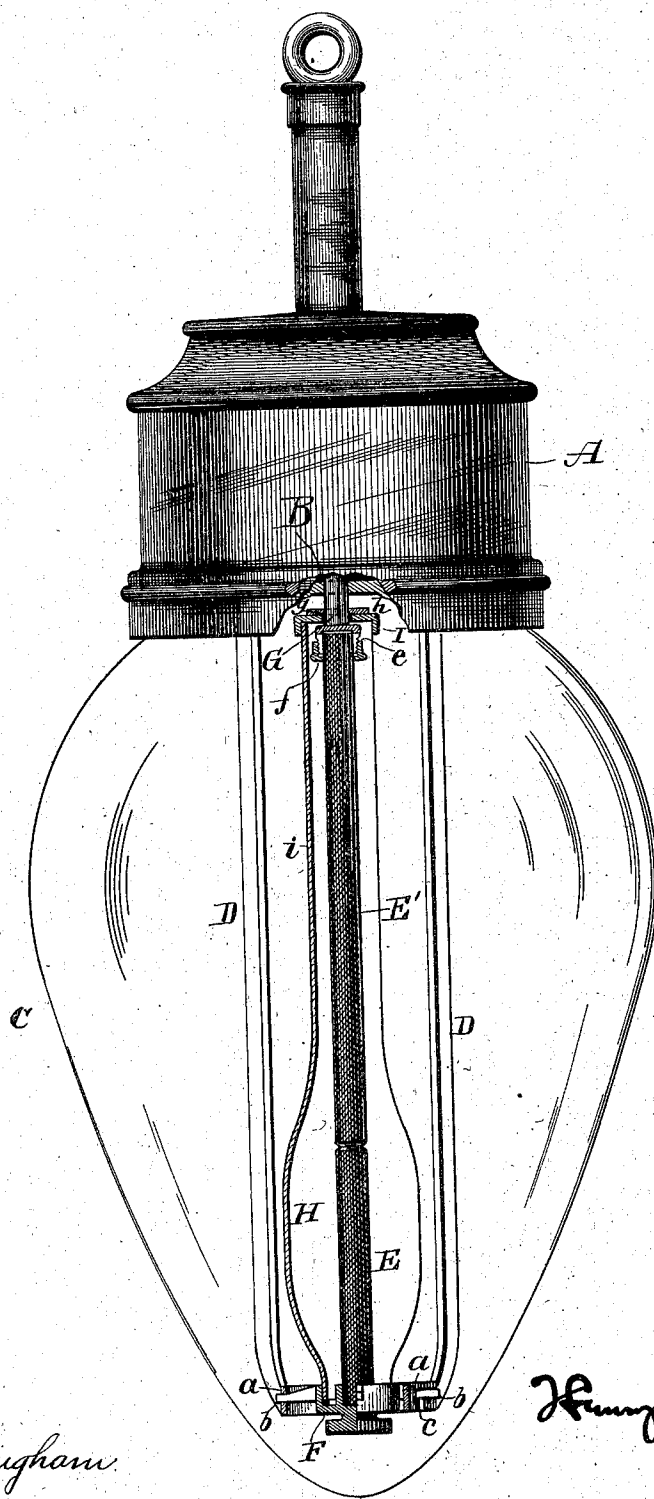


(No Model.)

H. A. SEYMOUR.
ELECTRIC ARC LAMP.

No. 574,119.

Patented Dec. 29, 1896.



Witnesses

E. J. Nottingham

S. W. Foster

Inventor

Henry A. Seymour

UNITED STATES PATENT OFFICE.

HENRY A. SEYMOUR, OF WASHINGTON, DISTRICT OF COLUMBIA.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 574,119, dated December 29, 1896.
Application filed July 18, 1896. Serial No. 599,692. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. SEYMOUR, of Washington, District of Columbia, have invented certain new and useful Improvements in 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 an improvement in arc-lamps, and especially to that type of lamps in which arc-inclosing globes are employed.

As ordinarily constructed, arc-inclosing globes have been provided with a cover having a hole formed therein, through which the feeding carbon passes and in which it snugly fits. In order to maintain such arc-inclosing globes as nearly air-tight as it was possible, various constructions of packing were resorted to for packing the opening between the outer surface of the feeding carbon and the inner wall of the hole in the cover through which the carbon was fed into the globe. However, it has been found extremely difficult to produce and maintain a satisfactory packing around the carbon, because of its rough and uneven surface, and, further, because in the manufacture of carbons it is impossible to make them perfectly straight and true throughout their length.

The object of my invention is to provide an arc-inclosing globe of such construction and so combined with the lamp that it may be maintained practically air-tight without the necessity of applying packing of any kind or description around the carbon.

With this end in view my invention consists in the combination, with the carbons of an arc-lamp, of an arc-inclosing globe provided with a cover which is mounted upon and supported by the carbon-holder.

The accompanying drawing illustrates my improved lamp partly in side elevation and partly in vertical section.

A is the lamp-casing, B the lamp-floor, C the outer globe, and D the side rods, of the lamp-frame. The lower carbon E is secured in a socket a by means of a set-screw or other device. Socket a is preferably formed integral with the globe-holder F, which is pro-

vided with outwardly-projecting pins b, which engage in bayonet-lock slots c, formed in the ring d, which connect the two side rods. This construction allows of the ready attachment and detachment of the globe-holder.

E' is the feeding carbon, which is attached to the carbon-holder G by means of a split socket e and a screw-threaded thumb-nut f.

H is an arc-inclosing globe. It is secured at its lower end practically air-tight to the globe-holder F. Upon the upper end of the globe is seated a cover I, which is provided with an opening g, through which the carbon-holder G passes and is fed. An annular valve h snugly encircles the carbon-holder and seats upon the cover I. Owing to the fact that the carbon-holder is a perfectly smooth and straight metal rod, the annular valve may snugly fit around the same without interfering with its operation in adjusting and feeding the carbon. The valve may be dispensed with and the walls of the hole in the cover be made to snugly fit the carbon-holder.

The arc-inclosing globe is preferably formed with its upper portion i of small diameter to reduce the interior capacity of the globe and still provide ample space for the reception of the feeding carbon and carbon-holder.

By forming the arc-inclosing globe of such length that it will receive the full length of both carbons and thus render it unnecessary to apply any packing about the carbons it allows of the employment of carbon-holders of any desired diameter either greater or less than the diameter of the feeding carbon. The cover of the arc-inclosing globe is mounted upon and supported by the carbon-holder, so that in removing the carbons the cover is always maintained in position for the insertion of the upper end of the globe after new carbons have been inserted.

The outer globe is secured in a practically air-tight manner to the lamp, and hence prevents the ingress of outer air thereto, and serves to shield the arc-inclosing globe.

It is evident that many forms of cover might be applied to the upper end of the arc-inclosing globe, and hence I do not limit the invention to the particular construction of cover shown and described.

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

In an arc-lamp, the combination with its 5 carbons, and carbon-holder, of an arc-inclosing globe provided with a cover which is mounted upon and supported by the carbon-holder, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY A. SEYMOUR.

Witnesses:

S. G. NOTTINGHAM,
S. W. FOSTER.