

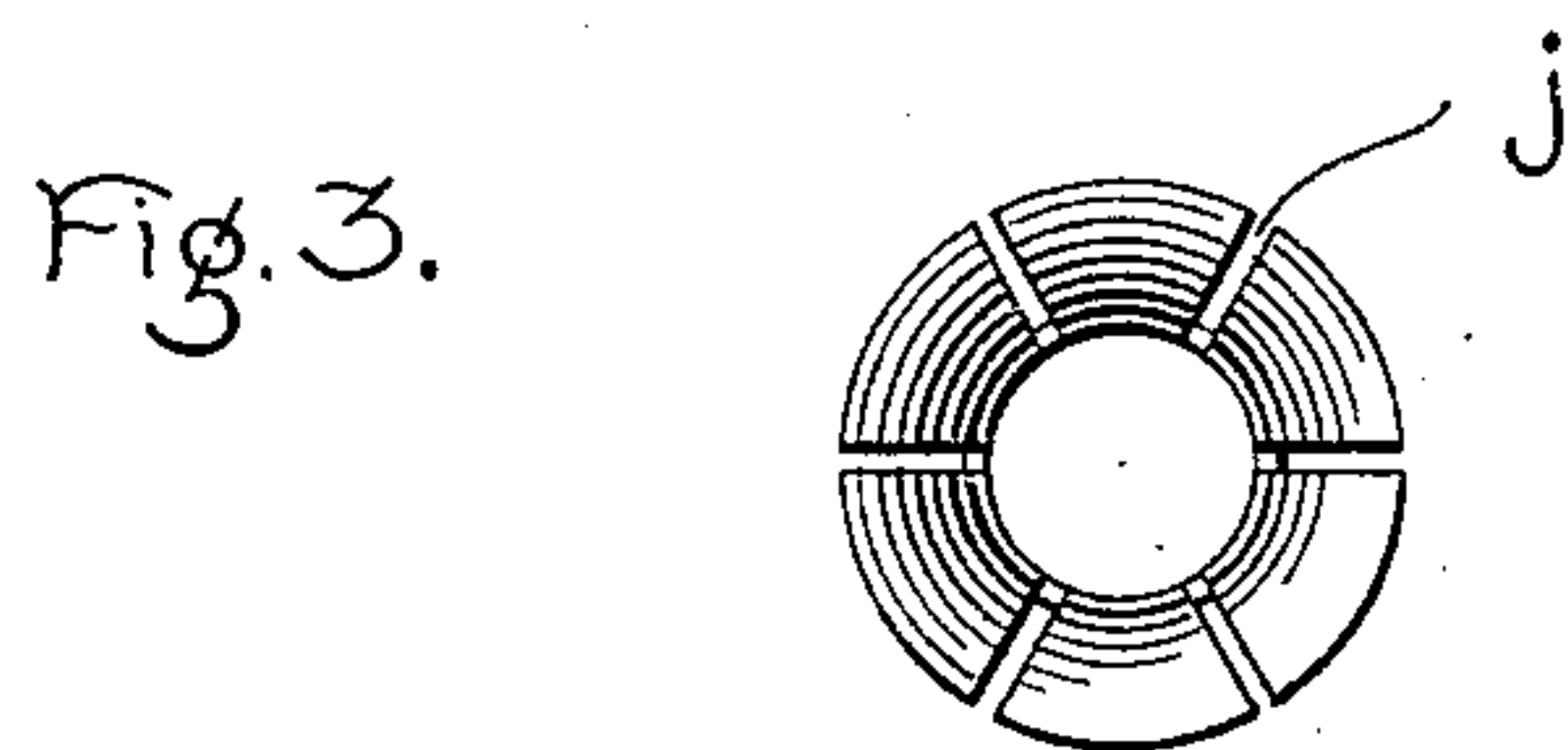
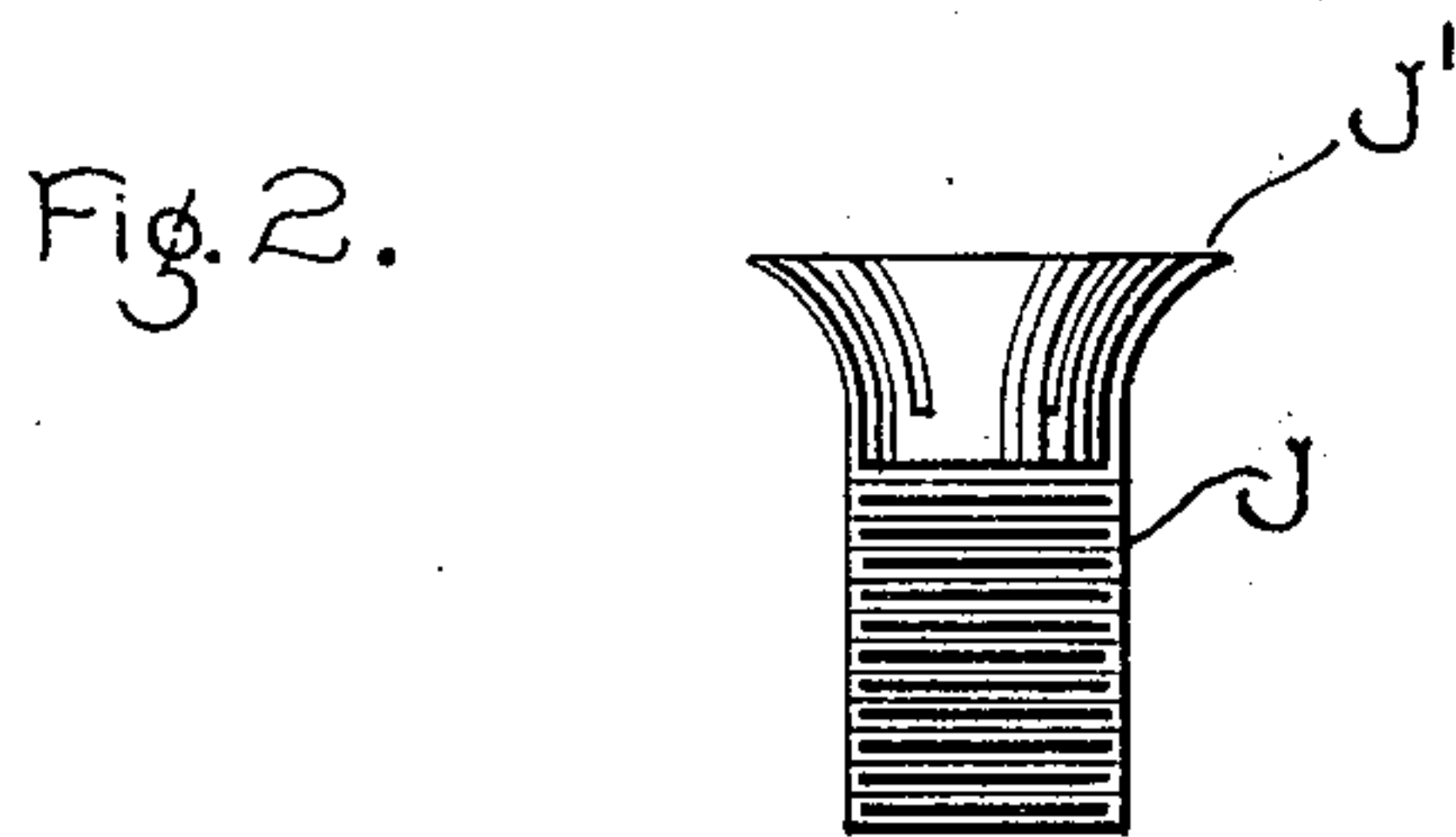
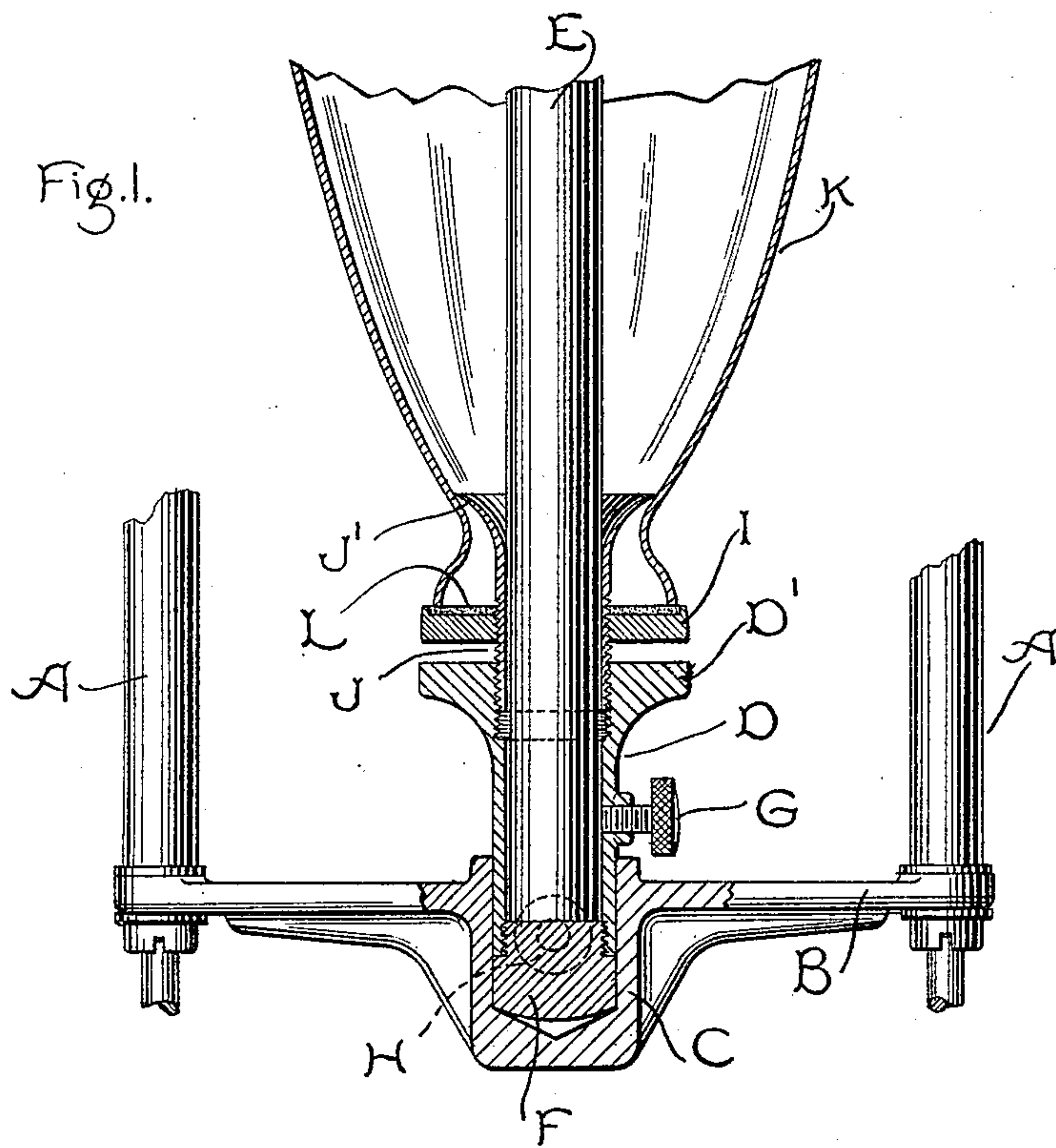
No. 659,706.

Patented Oct. 16, 1900.

H. C. SPINNEY.
GLOBE HOLDER.

(Application filed Mar. 23, 1899.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY C. SPINNEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE
GENERAL ELECTRIC COMPANY, OF NEW YORK.

GLOBE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 659,706, dated October 16, 1900.

Application filed March 23, 1899. Serial No. 710,172. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SPINNEY, a citizen of the United States, residing at Lynn, county of Essex, State of Massachusetts, have
5 invented certain new and useful Improvements in Globe-Holders, (Case No. 1,156,) of which the following is a specification.

My invention relates more particularly to the holders for globes of arc-lamps, and has
10 for its object to improve their construction.

In the accompanying drawings, which illustrate an embodiment of my invention, Figure 1 is a sectional view of a globe and holder
15 with a portion of the lamp-frame. Fig. 2 is an elevation of a modified form of the globe-retaining device, and Fig. 3 is a plan view of the same.

At the present time it is customary to clean the arc-surrounding globes or cylinders of
20 the various arc-lamps on a system at the central station and also to insert new carbons in the holders at that time, thus simplifying the work of the trimmer to a material degree. When this is done, the cylinders are placed
25 in a suitable rack or holder in readiness for the trimmer, and as he trims a lamp a clean cylinder is removed and a dirty one substituted.

My invention is directed principally toward
30 providing a suitable holder for the cylinder and carbon which is removable; but the invention is not restricted to this, since certain of the parts may be arranged to form a permanent part of the lamp.

Referring to the drawings, A represents the side tubes or supports of an arc-lamp, and connecting the tubes is a yoke B, having a socket C for receiving the combined carbon and globe holder D. The holder D is provided with a tubular receptacle in which the carbon E is inserted, a plug F for closing the end of the receptacle, and a set-screw G for clamping the carbon in place. The holder is arranged to be inserted in the socket C and
40 is retained in place by a set-screw H. (Shown in dotted lines.) The upper portion of the holder is flared upwardly to form a seat D', with which the nut I engages when the globe-holder is mounted in its proper position. For
45 the purpose of illustration the clamping device for the inner globe or cylinder is shown

in the process of being assembled or mounted in place. The upper portion of the holder D has a bore somewhat larger than the diameter of the carbon E and is screw-threaded to
55 receive the globe-retaining device J. In the present instance the globe-retaining device consists of a thin metal sleeve which is screw-threaded on the lower end and is provided with an outwardly-flaring flange J', that en-
60 gages with the inner surface of the cylinder K when the parts are assembled in their proper position. The outwardly-flaring flange J' may be slotted, as at j, Figs. 2 and 3, in order to provide a certain amount of spring in the
65 retaining device to compensate for irregularities in the material of which the cylinder K is composed and for the changes in the cylinder due to expansion and contraction caused by the heat from the arc; but I pre-
70 fer the solid construction shown in Fig. 1. Situated between the cylinder K and the nut I is a washer or packing-ring L. This ring is designed to form a seat for the cylinder and prevent the entrance of air at this point
75 when the nut has been adjusted to its normal position.

In holders for inner globes of arc-lamps it is very essential that the holder shall press evenly and firmly against the material of
80 which the cylinder is composed, particularly if the latter is made of glass. I have found that if the holder is so designed that it presses more at one point than at another the cylinder is liable to crack at the point of greater
85 pressure.

In assembling the cylinder and its holder the tubular piece J is inserted in the cylinder from the upper end. The nut I is then mounted in place and screwed upward until
90 the outwardly-flaring flange of the sleeve J rests firmly and evenly on the inner surface of the cylinder. This firmly secures the cylinder K in place, after which the carbon may be inserted and the sleeve J mounted in
95 place by screwing it into the holder D.

With the parts arranged as shown the trimmer may leave the holder D in the lamp and merely remove the cylinder, sleeve J, and nut I; or he may remove both the globe
100 and carbon holders. In certain instances this will be a considerable advantage, par-

particularly in cold and rainy weather, since it enables a trimmer to perform his duties in a very short time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In an electric-arc lamp, the combination of a yoke having an opening for receiving the globe-holder, a support for the yoke, and a globe-holding device which holds the globe independent of the yoke and comprises a clamp mounted in the socket and arranged to engage with the inner surface of the globe, a packing-ring, a nut for drawing the clamp into engagement with the globe so that the latter will rest on the packing-ring, and means independent of the globe-clamping nut for securing the clamp in the yoke.

2. In an arc-lamp, the combination of a yoke having a socket, a combined carbon and globe holder mounted in the socket, means for retaining the holder in place, separate means for retaining the carbon in place, and adjustable means for clamping the globe in place.

3. In an electric-arc lamp, the combination of side rods, a yoke connecting the side rods

provided with a central socket, a carbon-holder mounted in the socket and provided with an enlarged end or head and an opening, a globe-holder having an outwardly-flaring upper end arranged to engage with the inner wall of the globe and a screw-threaded lower end for entering the carbon-holder, and a nut which holds the globe against the end of the holder and also engages with the enlarged head to form a stop.

4. In an electric-arc lamp, the combination of a yoke containing a socket, a holder having a screw-threaded central opening, a screw-threaded globe-holder mounted in the opening, the globe-holder consisting of a tubular sleeve having an outwardly-flaring end which engages with the inner wall of the globe, means for forcing the end of the sleeve into engagement with the globe, and other means for securing the holder in the socket.

In witness whereof I have hereunto set my hand this 20th day of March, 1899.

HENRY C. SPINNEY.

Witnesses:

DUGALD MCKILLOP,
HENRY O. WESTENDARP.