

No. 720,306.

PATENTED FEB. 10, 1903.

J. J. WOOD.
GLOBE HOLDER FOR ARC LAMPS, &c.
APPLICATION FILED FEB. 25, 1902.

NO MODEL.

FIG. 1.

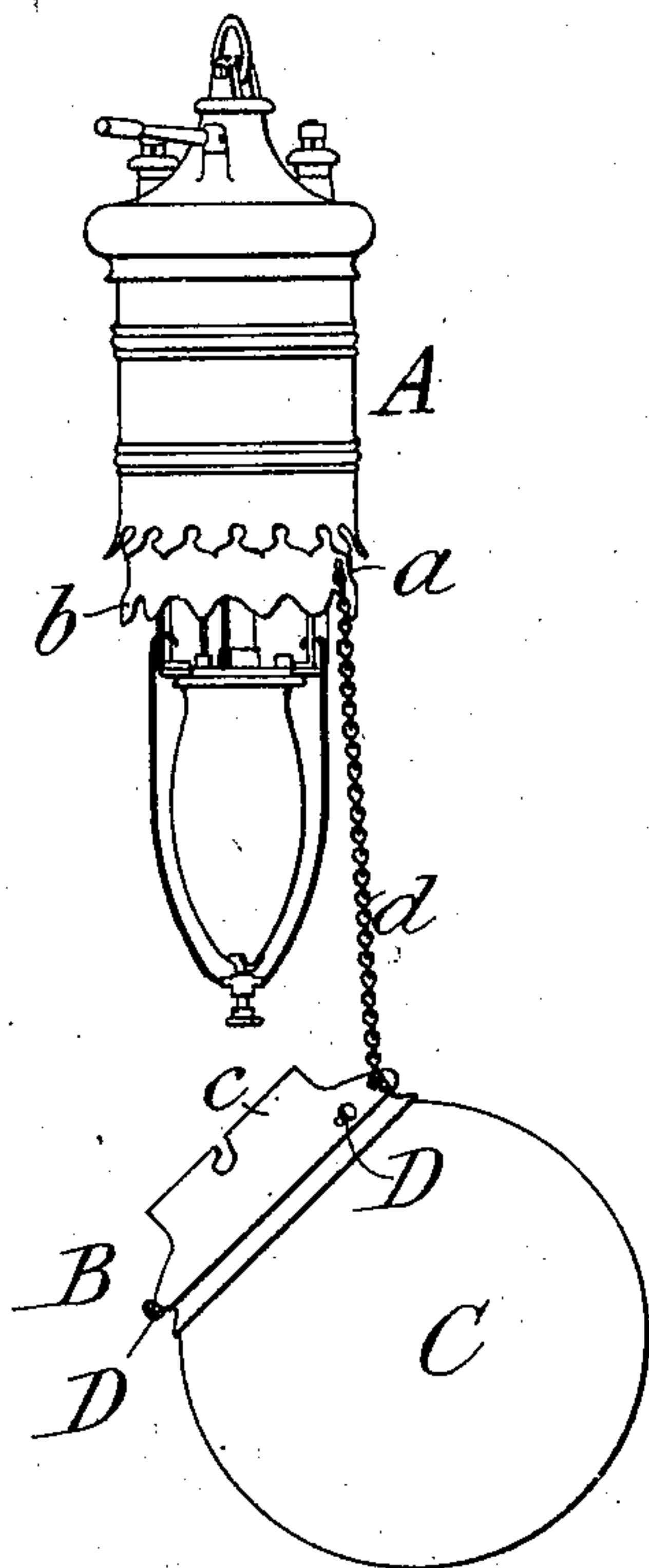


FIG. 2.

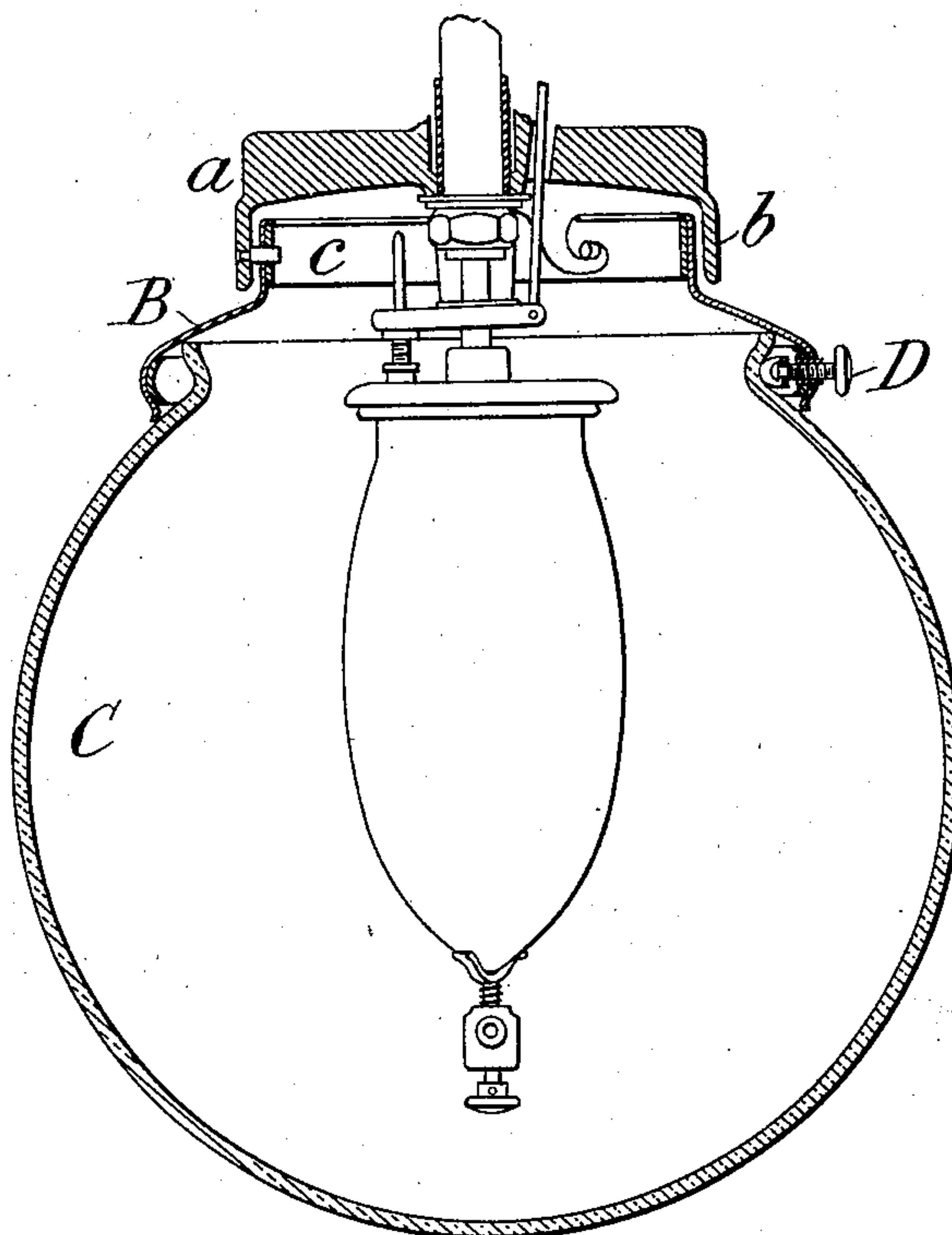


FIG. 5.

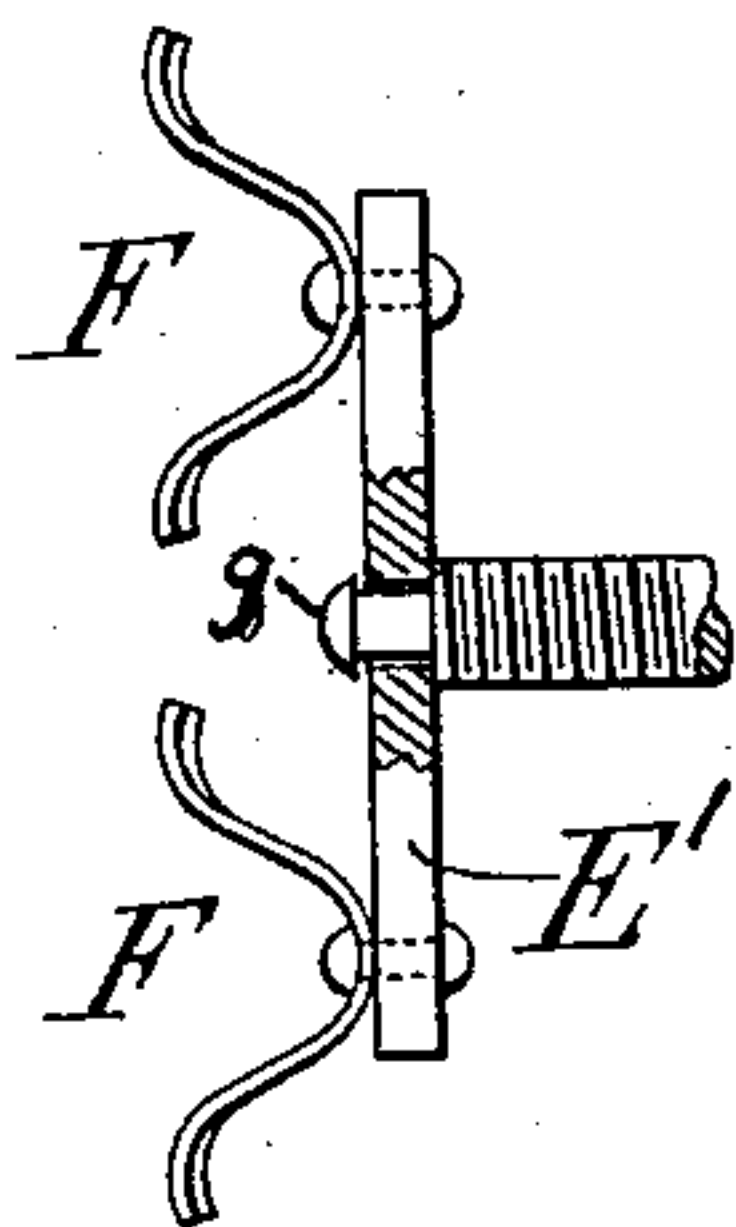


FIG. 3.

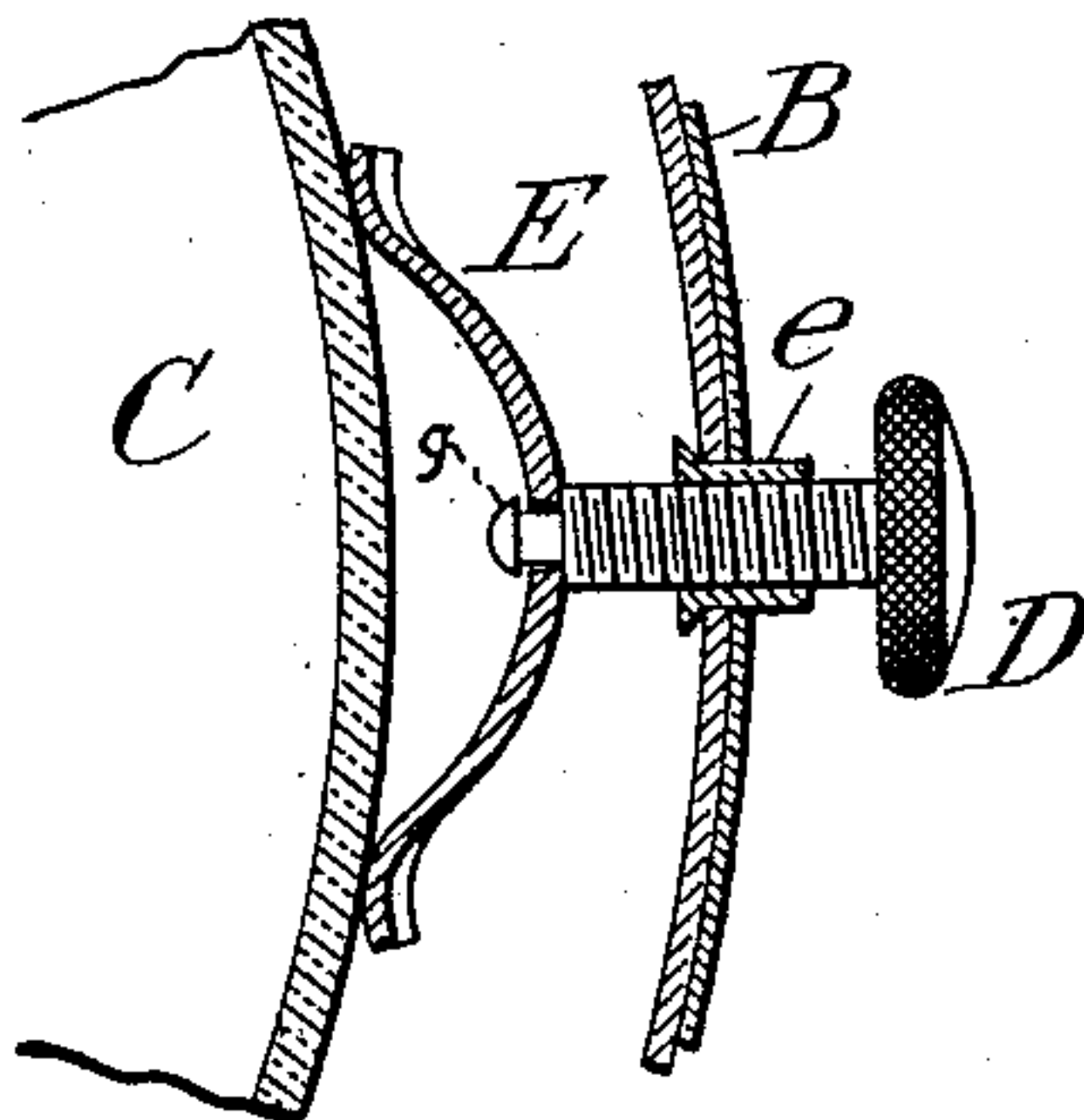
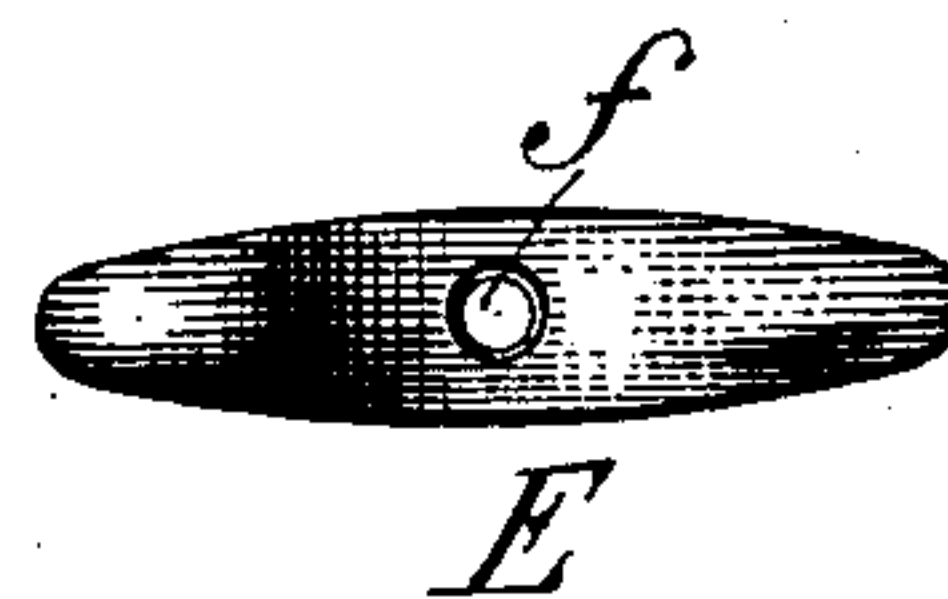


FIG. 4.



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UNITED STATES PATENT OFFICE.

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GLOBE-HOLDER FOR ARC-LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 720,306, dated February 10, 1903.

Application filed February 25, 1902. Serial No. 95,585. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. WOOD, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Globe-Holders for Arc-Lamps, &c., of which the following is a specification.

This invention provides a globe-holder that is designed, primarily, for fastening the globe of an electric-arc lamp, although applicable also to the fastening of other globes to their holders or carriers.

Figure 1 of the accompanying drawings is a side elevation of an arc-lamp with its globe-holder detached. Fig. 2 is a section, on a larger scale, of the globe and globe-holder in place. Fig. 3 is a transverse section, on a still larger scale, taken through the globe fastening or clamping screw. Fig. 4 shows a detail of the globe-fastener. Fig. 5 is a view similar to Fig. 3, but showing a modified construction.

Let A designate an arc-lamp body or casing of any suitable kind, *a* being the lower portion of the body thereof, which is shown as having a depending flange *b*.

B is a globe holder or carrier, which is shown as formed with a neck *c*, entering within the flange *b* and detachably engaged therewith.

C is a globe fastened to the holder B. The holder is shown in the normal position in Fig. 2, while in Fig. 1 it is shown as disconnected and dropped, so as to be suspended by a chain *d*.

My invention relates to the clamping devices for fastening the globe C to the globe-holder B. It is usual to fasten these globes by means of set-screws screwing through the globe-holder and bearing at their inner ends against the grooved neck of the globe, three such screws being commonly used. Such set-screws, however, are liable to break the globe by being screwed up too tight. According to my invention I form the globe and holder so that the former fits loosely or freely within the latter and is hung or suspended upon springs which are carried by the holder and fit into a depression formed in the globe. The springs are preferably leaf-springs and are mounted to receive inward pressure to force them against the globe. The pressing-

in devices are most simply made as clamping-screws carried by the holder, to the inner ends of which screws the springs are swiveled. Each spring is preferably bowed outwardly at its middle, so that its two ends alone engage the neck of the globe. Thus the screws instead of bearing directly upon the globe each at a single point bear indirectly thereon, their pressure being communicated to the globe through yielding or elastic mediums and preferably transmitted to two or more points, whereby it is equalized. I have shown clamping-screws D D, of which preferably there are three, these screws preferably engaging threads in a bushing or reinforce *e* in the holder B. Each screw has swiveled on its inner end an equalizing-spring E, as best shown in Fig. 3, this spring being preferably of the shape shown separately in Fig. 4. The middle hole *f* in the spring is engaged loosely by a neck on the inner end of the screw, so that the spring may rock sufficiently to adapt itself to any inequality in the globe, the screw having an inner head *g*, adapted to prevent the spring dropping off when unscrewed. The inner ends of the spring are bent toward the globe, the ends being preferably rounded transversely to fit the neck and the spring being preferably bowed, as shown. As pressure is put upon the screw it forces the middle portion of the spring inward, and the pressure is transmitted yieldingly to the ends of the spring which bear upon the globe. The globe is thus suspended upon the springs, so that it has no rigid connection with the holder, but, on the contrary, is capable of a slight lateral or tilting motion within the holder. As a result of this construction any shocks to which the holder may be subjected are taken up by the springs. A further result is that as the pressure of the screw is applied to the globe at two points instead of one and yieldingly instead of rigidly it is almost impossible to break the globe by screwing in the clamping-screws too hard. My invention thus introduces the novel feature of suspending the globe flexibly or elastically from the holder, while providing for the interposition of a yielding medium between the clamping-screws and the globe, so that the pressure of the screws is yieldingly transmitted to the

globe. The loose connections between the springs and the screws permit the spring to rock, so that both ends of the spring exert substantially the same pressure upon the globe.

As a suggestion of one among several modifications of which my invention is susceptible, I have shown in Fig. 5 a rigid equalizing-bar E', carrying on its ends two separate springs F F.

Other modifications will readily suggest themselves to those skilled in the art without departing from my invention.

I am aware that it has been proposed in signaling devices to form a bulb and its holder so that the neck of the bulb fits closely within the holder, which latter is disposed in a horizontal position, a fastening device being provided to prevent the bulb from sliding horizontally out of the holder. In addition to the fact, however, that such bulbs are distinguished from my present invention in form, disposition, and use, the connection between the holder and bulb being a rigid one is very apt to result in the breakage of the latter.

What I claim is—

1. In an electric-arc lamp, the combination of a globe and its holder, the holder having a pendent portion for receiving the neck of the globe, and the globe having a neck fitting loosely within said portion, with means for suspending said globe from the holder comprising springs carried by said holder and engaging the neck of the globe, said springs adapted to yieldingly support said globe in such manner that the latter will be capable of lateral movement within the holder.

2. In an electric-arc lamp, the combination of a globe and its holder, the holder having a pendent portion for receiving the neck of the

globe, and the globe having a neck fitting loosely within said portion, with means for suspending said globe from the holder comprising devices for exerting an inward pressure against the globe to hold it, and equalizing-springs bearing at their ends against the neck of the globe, and loosely swiveled to such devices for yieldingly transmitting their pressure to the globe.

3. In an electric-arc lamp, the combination of a globe and its holder, the holder having a pendent portion for receiving the neck of the globe, and the globe having a neck fitting loosely within said portion, with means for suspending said globe from the holder comprising screws passing through said holder, and equalizing-springs loosely swiveled to said screws, and yieldingly transmitting the pressure of said screws to the neck of the globe, said screws having inner heads for confining said springs.

4. In an electric-arc lamp, the combination of a globe and its holder, the holder having a pendent portion for receiving the neck of the globe, and the globe having a neck fitting loosely within said portion, with means for suspending said globe from the holder comprising screws passing through said holder, bushings for said screws held in said holder, and equalizing-springs loosely swiveled to said screws for yieldingly transmitting the pressure of said screws to the neck of the globe.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES J. WOOD.

Witnesses:

A. A. SERVA,

W. F. MELCHING.