

No. 771,240.

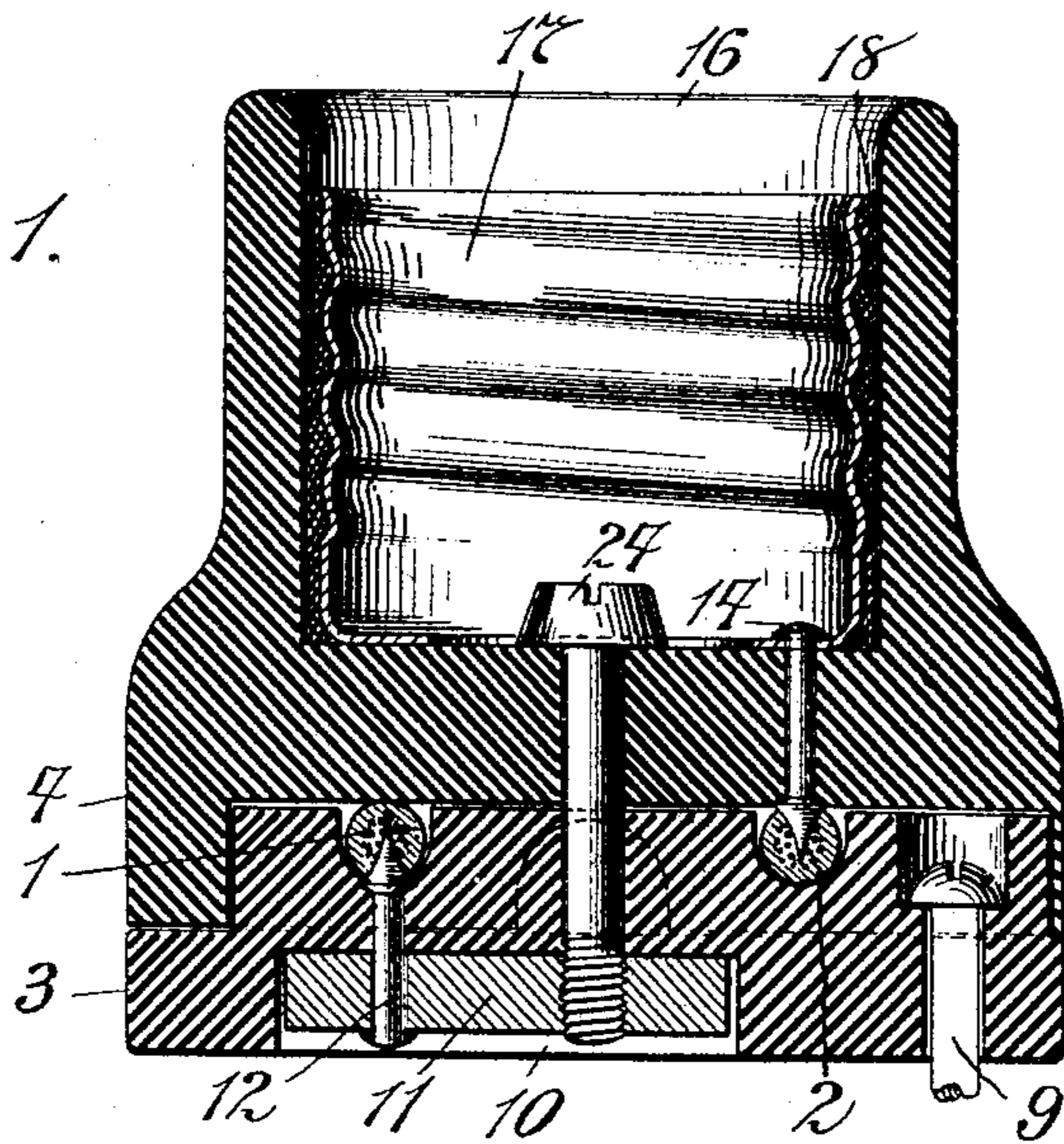
PATENTED OCT. 4, 1904.

E. R. GILL.  
SOCKET FOR ELECTRIC LAMPS.

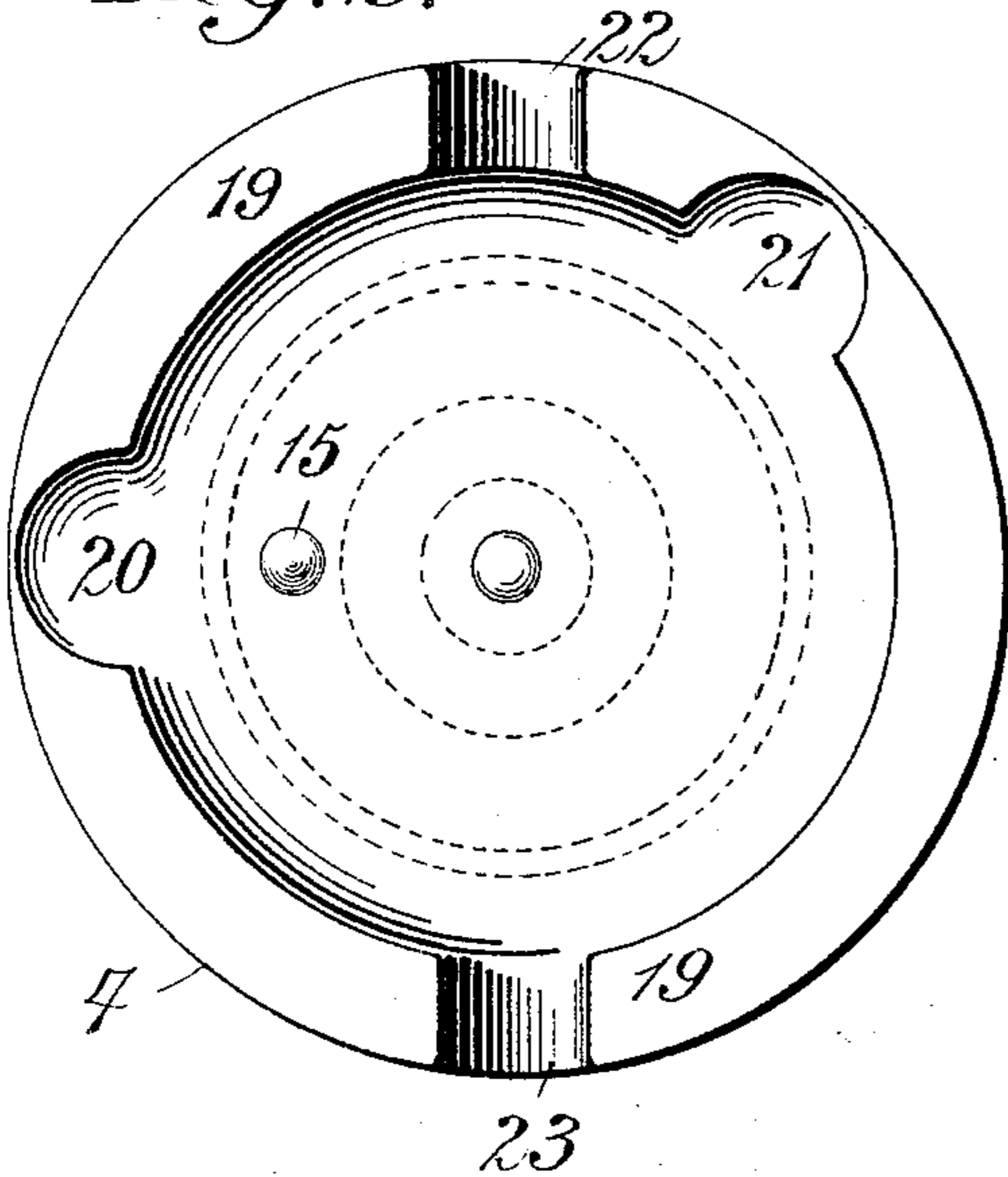
APPLICATION FILED JUNE 27, 1903.

NO MODEL.

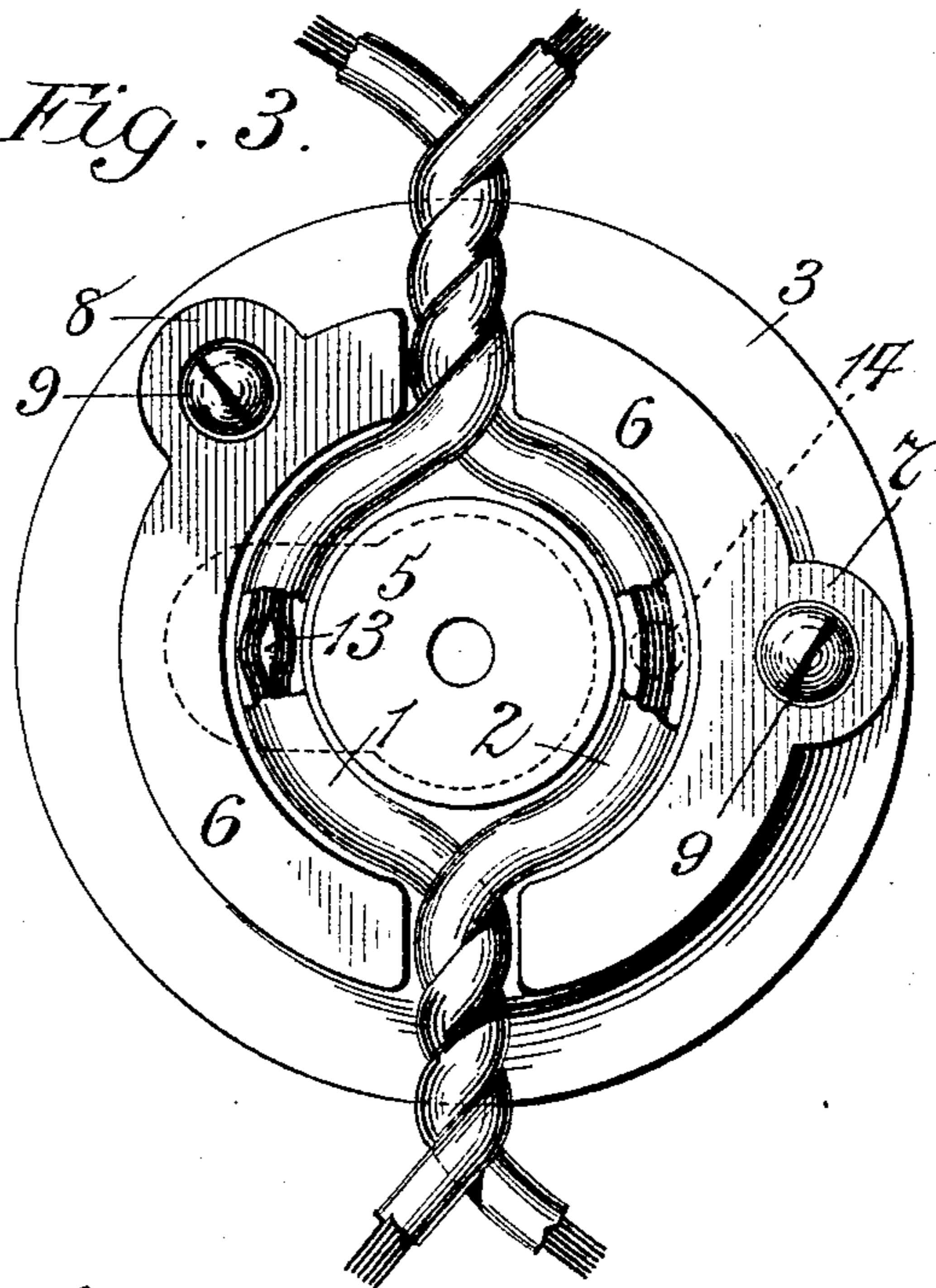
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
Edward Rowland,  
Florence Pick

Edwin R. Gill Inventor  
By his Attorney *Asa Mackay*

# UNITED STATES PATENT OFFICE.

EDWIN R. GILL, OF YONKERS, NEW YORK.

## SOCKET FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 771,240, dated October 4, 1904.

Application filed June 27, 1903. Serial No. 163,293. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN R. GILL, a citizen of the United States, residing in Yonkers, county of Westchester, and State of New York, have invented a certain new and useful Improvement in Sockets for Electric Lamps, of which the following is a specification.

My present invention has relation to a form of lamp-socket which while affording exceptional protection from all the recognized dangers incident to electric circuits at the same time supplies means whereby an electric lamp may be quickly applied to insulated wires without stopping to remove insulation.

One preferred feature of this invention lies in the means provided to insure the proper assembling of parts in operative relation whereby all mistakes of workmen are obviated.

A preferred form of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical median section of a complete socket as put together on the cables ready for the lamp. Fig. 2 is a plan view from beneath of the lamp-holding section of the socket; and Fig. 3 is a plan view of the supporting-section of the socket, a part of the cable-insulation being broken away.

In the drawings the usual twisted cable is shown composed of the two insulated wires 1 and 2. These are shown as made up of many fine wires to better illustrate the forcing of the points into the cable; but this construction of wire is not essential to the invention.

The socket, which is made of insulating material, preferably porcelain, is divided into two parts, the supporting or cable-holding section 3 and the lamp-holding section 4. Figs. 2 and 3 show these two parts as they would appear if separated and folded away from each other like the leaves of a book. The supporting part is provided with a central boss 5, surrounded by the grooves which hold the cables 1 and 2, which grooves are in turn surrounded by the outer semicircular projections or rims 6.

Two perforated bosses 7 and 8 are provided for the accomplishment of a double function.

They are countersunk for the reception of screws or bolts 9, (see Fig. 1,) and they also serve as guides to insure proper assemblage of the two parts of the socket, as hereinafter described. The screws or bolts 9 serve to attach the section 3 to a wall or other desired locality.

Beneath the section 3 the hollow 10 is provided, which has preferably the shape substantially shown in dotted lines in Fig. 3. Within this hollow is placed a nut 11, which is shaped like the hollow itself and loosely fits it. This nut is held in place in any desired manner; but in the particular form shown the pin 12 acts for this purpose. The pin 12 passes through an appropriate perforation in the nut 11, being soldered underneath to the nut. The upper end of the pin is provided with a sharp point, as shown at 13 in Fig. 3, which point is provided with a shoulder accommodated by a corresponding hollow in the bottom of one cable-receiving groove. The pin therefore passes through the socket-section 3 and nut 11, being secured above by the shoulder on the point 13 and below by solder, which attaches it to the nut. The upper section 4 is also provided with a pin 14, the head of which carries a shouldered point 15, and the pin is so placed that when the socket parts are assembled the points of the two pins will extend into opposite cable-receiving grooves in the lower section of the socket, as indicated at 13 and 14 in Fig. 3.

The upper side of the section 4 is prolonged into the usual sleeve 16, within which fits loosely the metallic screw-threaded sleeve 17, having an inwardly-turned flange at the bottom through which the pin 14 passes, being soldered thereto, as shown in Fig. 1. The sleeves 16 and 17 may be secured together in any desired manner, and I have shown in Fig. 1 a preferred means for this end, consisting of a layer of plaster-of-paris or similar material 18, which is applied to the exterior of the metal sleeve 17 just before this latter is inserted in place. When the plaster hardens, the connection is made permanent. The peripheral depending edge 19 of the upper section 4 is cut away, as shown at 20 and 21, for the purpose of guiding the user in assembling the

parts. By bringing the parts together, so that the recess 21 comes over the boss 8 and the recess 20 over the boss 7, the two sections can be brought into the positions shown in Fig. 1, wherein the pointed pins are brought into proper relation, and the channels 22 and 23, which pass through the rim 19, come over the united cables and form the opening whereby the cables enter the finished socket.

Through a central perforation in the two parts of the socket a securing-screw 24 passes downward and is screwed into the threaded opening in the nut 10. (See Fig. 1.) This screw acts at once to firmly unite the sections together to force the points 13 and 15 through the insulation into the conductors and to convey current from one conductor to one terminal of the lamp. The head of the screw 24 acts as one interior terminal of the socket, while the threaded sleeve 17 acts as the other terminal. The relative position of these terminals is the familiar one where lamps with one central terminal are used.

When the socket is to be applied to a cable composed of two conductors, these latter are introduced into the grooves surrounding the parts 5 in substantially the manner shown in Fig. 3. The section 4 is then placed over the section 3 and the screw 24 is started into the nut. By tightening on the screw 24 the sections 3 and 4 are brought firmly together and the points 13 and 15 are forced into the conductors through the insulation, the shoulders on said points bearing the thrust or strain, so as to avoid injury to the soldered attachments at the opposite ends of the pins. Since this mode of assembling the parts produces direct electric connection between the wire 2 and the sleeve 17 on one side and the wire 1 and the screw 24 on the other side, it is clear that the ordinary type of lamp with a central terminal will be properly connected by being simply screwed into place in the sleeve 17.

I am aware that various changes in the construction herein shown may be made without departing from the scope and spirit of this invention, and I do not intend to limit myself to the precise details herein shown and described.

What I claim is—

1. In a socket for incandescent lamps an attachment-section and a lamp-section each provided with conducting-points, a nut attached to the attachment-section and electrically connected to one of said points and a screw operating with said nut to attach the two socket parts together while serving as an electric conductor, substantially as described.

2. In a socket for electric lamps, an attachment-section and a lamp-section each provided with conducting-points the attachment-section being provided with a hollow, a nut fitting said hollow and attached to one of said points and a screw passing through both of said sections into said nut, substantially as described.

3. In a socket for electric lamps, an attachment-section having two grooves for the cables, a spike on said section having its point projecting up into the bottom of one of said grooves and two bosses on said section placed on different diametral lines; in combination with a lamp-section fitting over said attachment-section, and provided with recesses fitting said bosses and a downwardly-extending spike on the under side of said lamp-section so placed that when said recesses in one section fit over the bosses in the other section, the last-named spike will enter the cable-groove in the attachment-section opposite the groove occupied by the spike first above mentioned.

EDWIN R. GILL.

Witnesses:

H. S. MacKAYE,  
FLORENCE PICK.