

H. R. SARGENT.
INCANDESCENT LAMP.
APPLICATION FILED AUG. 1, 1904.

Patented Apr. 27, 1909.

919,474.

Fig. 1.

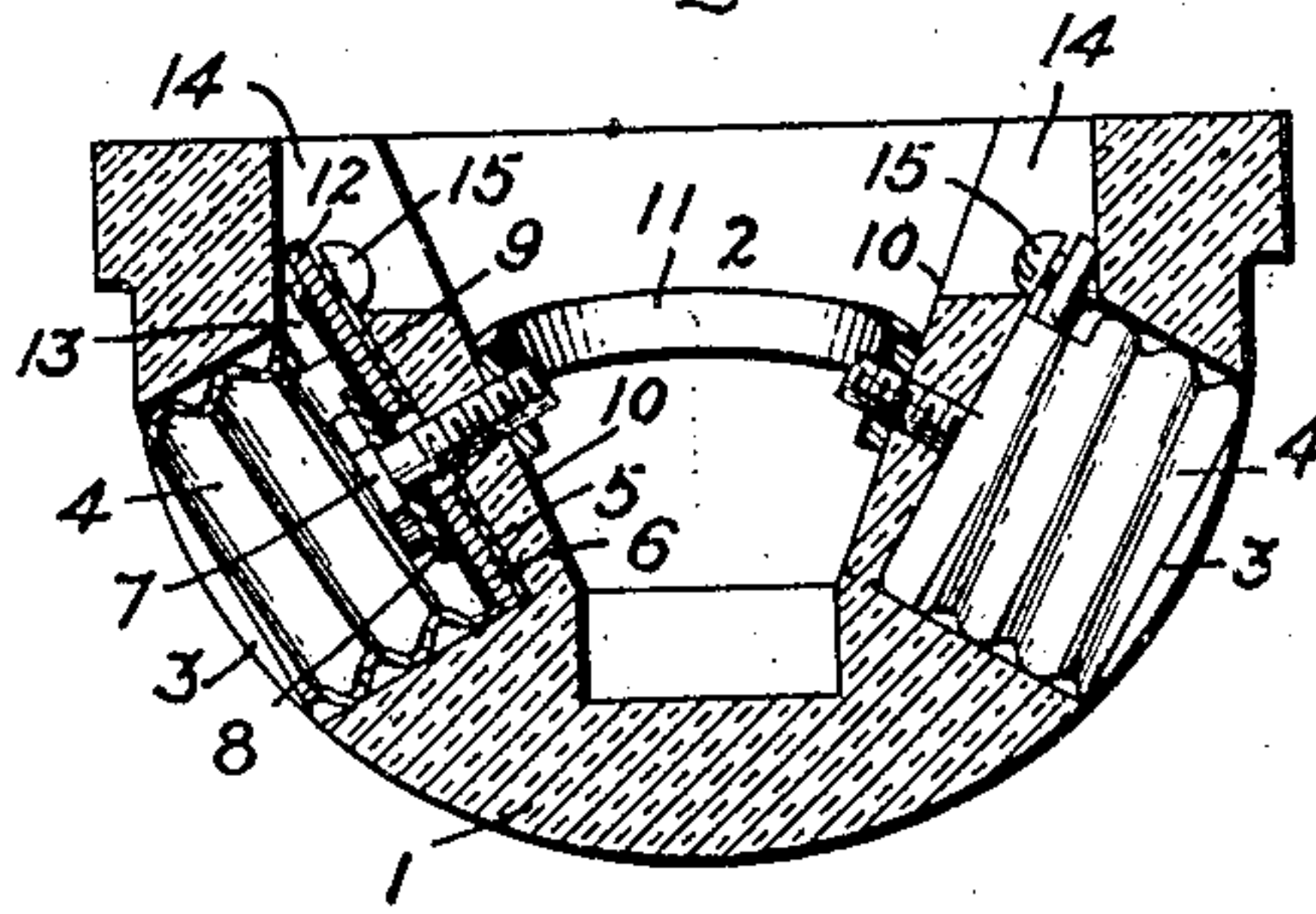


Fig. 2.

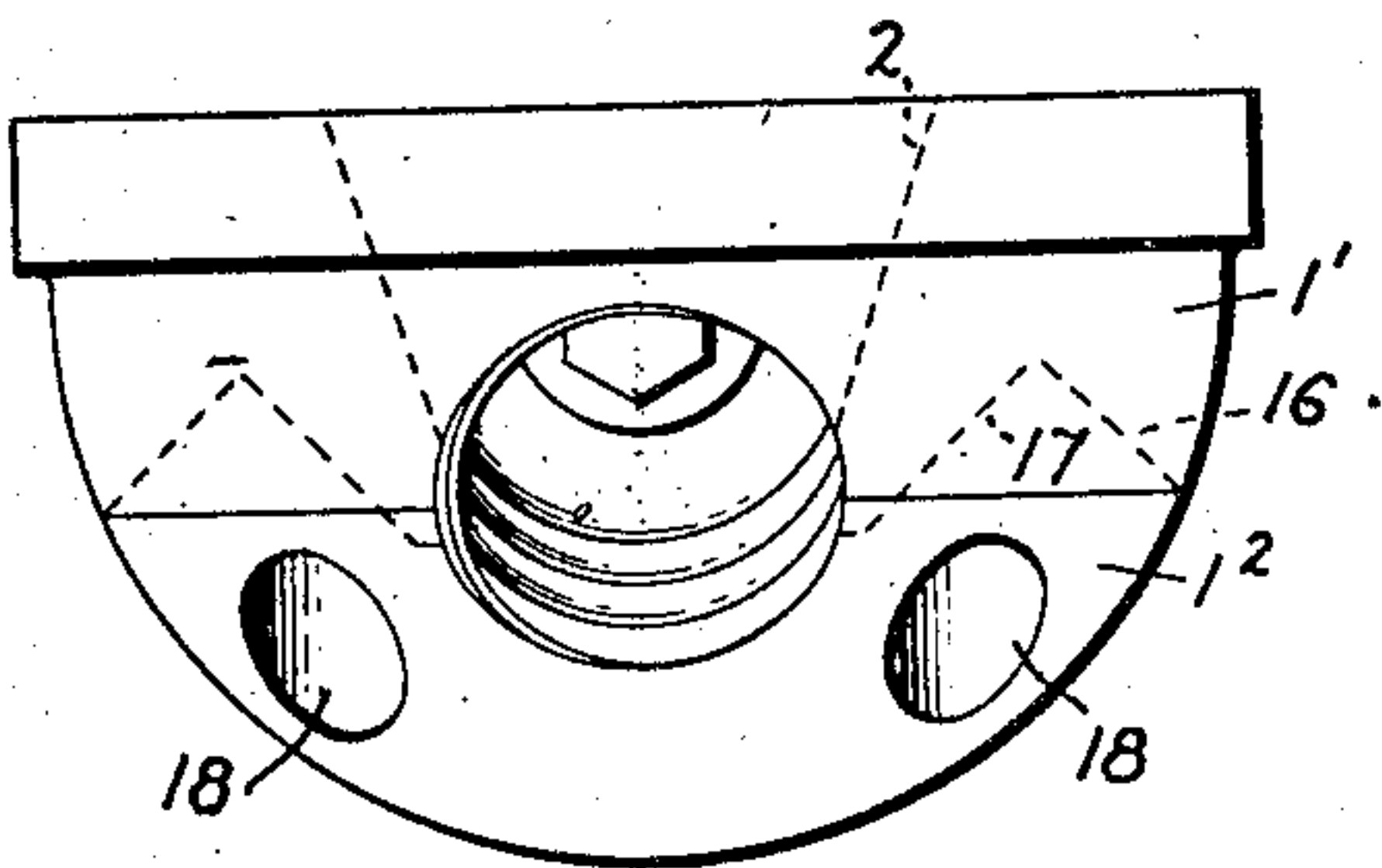
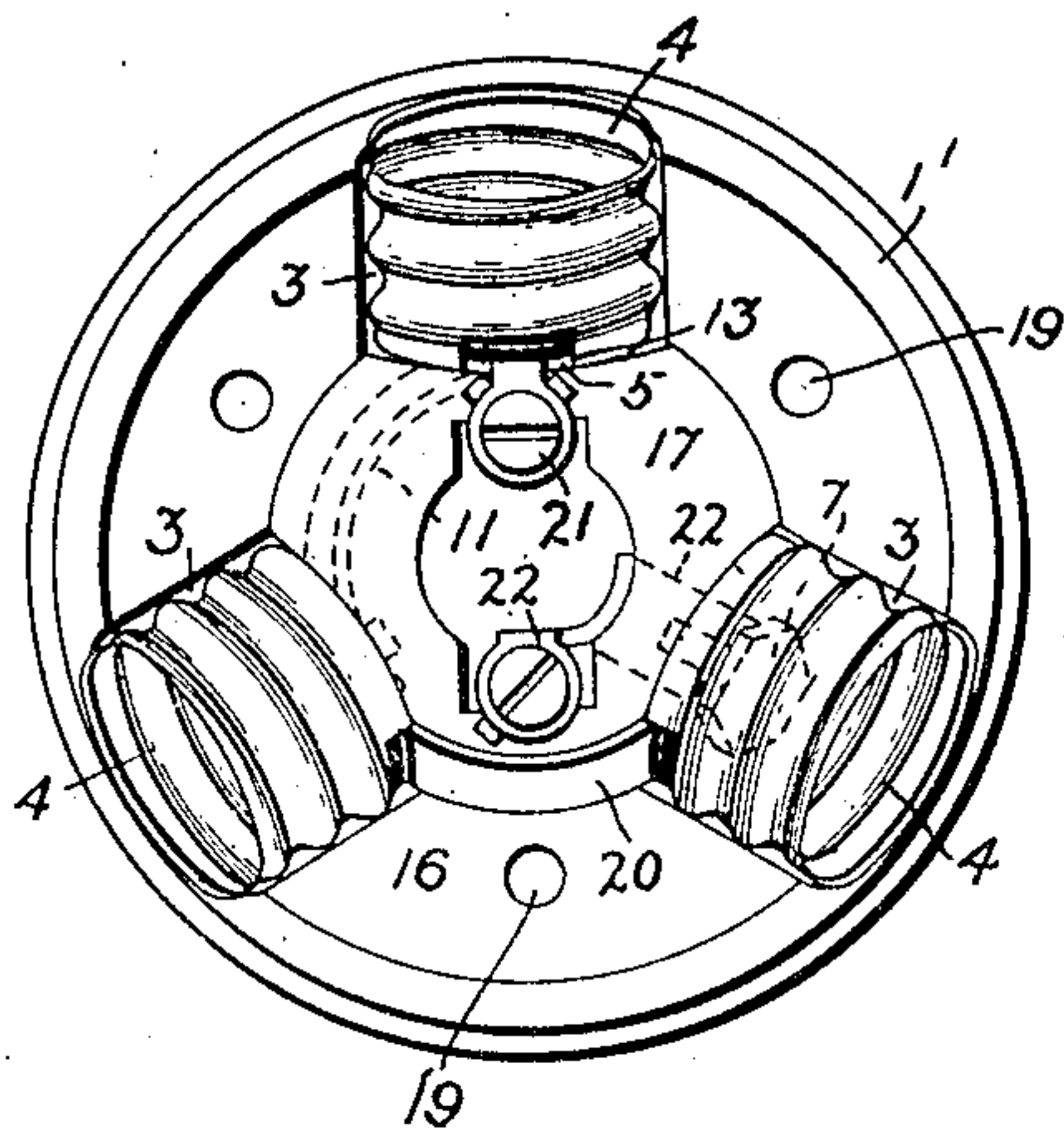


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

HOWARD R. SARGENT, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

INCANDESCENT LAMP.

No. 919,474.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed August 1, 1904. Serial No. 219,072.

To all whom it may concern:

Be it known that I, HOWARD R. SARGENT, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Cluster-Sockets for Incandescent Lamps, of which the following is a specification.

This invention relates to sockets for receiving and supporting incandescent lamps, and more especially to the class of such devices commonly known as cluster sockets.

The object of my invention is to provide a highly efficient socket of this character which will be of simple construction and less expensive to manufacture than the cluster sockets heretofore on the market.

In carrying out the invention I provide a one or two part base of suitable insulating material in the outer surface of which are formed cavities for the reception of lamp-engaging contacts, and having its central portion hollowed out so that the feed wires may be passed therethrough and connected to certain of the contacts and the other contacts connected in series or in multiple by suitable conductors, so that the base constitutes the direct and only support for the several conducting parts.

For a more complete understanding of my invention reference may be had to the following detailed description and the accompanying drawing forming a part of this specification, in which—

Figure 1 is a vertical section of a cluster socket with a one piece base; Fig. 2 is a side elevation of a cluster socket having a two piece base; and Fig. 3 is a plan view of the main section of a two part base and the several conductor parts secured thereto.

The base 1 as shown in Fig. 1 is of porcelain or other moldable insulating material with its exterior surface shaped in any manner pleasing to the eye, but preferably hemispherical, as indicated, and with its interior portion hollowed out by a conical chamber or cavity 2. Symmetrically arranged with respect to the vertical axis of the base are a plurality of cylindrical cavities 3 in the outer surface which extend radially inward, each for the reception of a threaded shell contact 4 with an intumed flange 5 and adapted to receive the base of an Edison incandescent lamp. These shell

contacts are each secured to the base by means of a metallic washer 6 which rests directly upon the flange 5, and a center contact bolt 7 having a flat head which rests upon a small washer 8 held out of conductive relation with the larger washer 6 by a layer 9 of mica or other insulation. The shank of the bolt 7 extends through the wall 10 separating the cavities 2 and 3 and engages at its inner end with a threaded hole in a metallic conductor strip 11.

The large washers 6 are each provided with a projection 12 which extends through an aperture 13 formed in the side of the threaded contact shell 4 and into recesses 14 formed in the walls of the central cavity 2, and carries at its end a binding screw 15 for securing an end of the feed wire.

The conductor strip 11 consists of a flat metal punching bent up into the surface of a cone, and provided at its ends with threaded apertures for receiving the inner ends of the center contact bolts 7, and thereby electrically connecting them in series. It is, of course, apparent that the large washers 6 might also be connected by a similar strip and the feed wires connected to the respective strips, so that the current would pass through both lamps in multiple.

The base shown in Figs. 2 and 3 differs from that shown in Fig. 1 in that it is divided into two sections 1¹ and 1² by two opposite conical surfaces 16 and 17, as indicated in dotted lines in Fig. 2, the outer conical surface 16 passing through the axes of the cylindrical cavities 3, and the inner conical surface 17 passing substantially through the plane surfaces of the bottoms of the cavities.

The sections 1¹ and 1² are held together by screws (not shown) which extend through holes 18 and 19 provided in the sections parallel to the vertical axis of the base, and serving to secure it to a wall or ceiling. In the latter construction there are shown contacts for receiving three lamps, two of them being connected by a strip 11, as in the construction shown in Fig. 1, and one of these two is connected to the third by a strip 20 and extends along the conical division surface 17. In order that a face connection for the feed wires may be provided, the large washer 6 at one end of the series is extended through an aperture

13 in the shell contact on the side adjacent the vertical axis of the base, and provided at its end with a binding screw 21, and the center contact 7 at the opposite end of the series of contacts engages a metal strip 22 extending inwardly along the surface of the inner cavity 2, bent over the lower edge thereof opposite the binding screw 21, and provided with a binding screw 22. It is apparent that the latter arrangement can be extended to include any number of lamps by providing a base of correspondingly increased dimensions and duplicating the connections shown.

I do not desire to be restricted to the form or arrangement of parts herein described and shown; since it is apparent that they may be changed and modified without departing from my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is:

1. A cluster socket, comprising an insulating base having a central chamber and side recesses formed therein, shell contacts provided with end flanges located in said side recesses, metallic contacts engaging said flanges and extending into said chamber, headed center contacts insulated from said shells and contacts and extending through the walls between the chamber and recesses, and engaging metallic conductors in said chamber.

2. A cluster socket, comprising an insulating base having a central chamber and side recesses formed therein, shell contacts provided with end flanges located in said recesses, metallic contacts engaging the outside of said flanges and extending into said chamber, insulating washers disposed upon said contacts, headed center contacts extending through said washers and the bottom walls of the recesses, and metallic connections in said central chamber.

3. A cluster socket, comprising an insulating base provided with a plurality of side recesses and divided into sections by a surface passing through the axes of said recesses, shell contacts and center contacts located in said recesses and secured to one section of said base, and means for electrically connecting said contacts.

4. A cluster socket, comprising an insulating base having a plurality of side recesses formed therein and divided into upper and lower sections by a surface passing through the axes of said recesses, shell contacts and center contacts located in said recesses and secured to the upper section of said base, conductors connecting said contacts in series, and binding posts connected to the ends of the series and brought to the lower side of said upper section.

5. A base for cluster sockets having a plurality of symmetrically arranged cylindrical recesses in its exterior surface and

divided into two sections by two conical surfaces, one passing through the axes of said cylindrical recesses and the other passing tangential to the bottom of said recesses.

6. A cluster for incandescent lamps comprising two parts made of insulating material each having formed therein half-sockets which with the corresponding half-sockets of the other parts form sockets, and threaded sleeves in said sockets which are adapted to receive the screw shells of incandescent lamps.

7. A cluster for incandescent lamps comprising a part made of insulating material and having half-sockets formed therein and provided with threaded sleeves for engagement by the screw shells of incandescent lamps and contacts for engagement by the bases of incandescent lamps, and another part also formed of insulating material and having half-sockets formed therein which with the corresponding half-sockets in the other part form sockets which inclose the threaded sleeves.

8. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, one of said parts having contacts for engagement by the bases of incandescent lamps.

9. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, said cluster having an internal recess and within said recess contacts to engage the screw shells and other contacts to engage the bases of incandescent lamps.

10. An incandescent lamp cluster consisting of two corresponding parts made of insulating material each part having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts to which the threaded sleeves are attached, other contacts for engagement by the bases of incandescent lamps and means for securing the parts together.

11. An incandescent lamp cluster comprising two corresponding parts made of insulating material each part having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts to which said sleeves are attached, bridge plates connecting certain of said contacts, contacts adapted for engagement by the bases of incandescent lamps, bridge plates connecting certain of said contacts, binding screws to which the circuit wires are attached and a bridge plate con-

ected to one of said binding screws and to a contact engaging a threaded sleeve and not connected to a bridge plate.

12. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, one of said parts being provided with holes through which the circuit wires pass and binding screws on its underside to which the circuit wires are connected and contacts which engage the threaded sleeves and the bases of incandescent lamps.

13. An incandescent lamp cluster comprising two corresponding parts made of insulat-

ing material each part having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts engaging respectively the threaded sleeves and the bases of incandescent lamps and binding screws on the underside of one of the parts to which the circuit wires are connected and which are connected in series with the contacts.

In witness whereof I have hereunto set my hand this 30th day of July, 1904.

HOWARD R. SARGENT.

Witnesses:

E. C. HOLLISTER,
HELEN ORFORD.