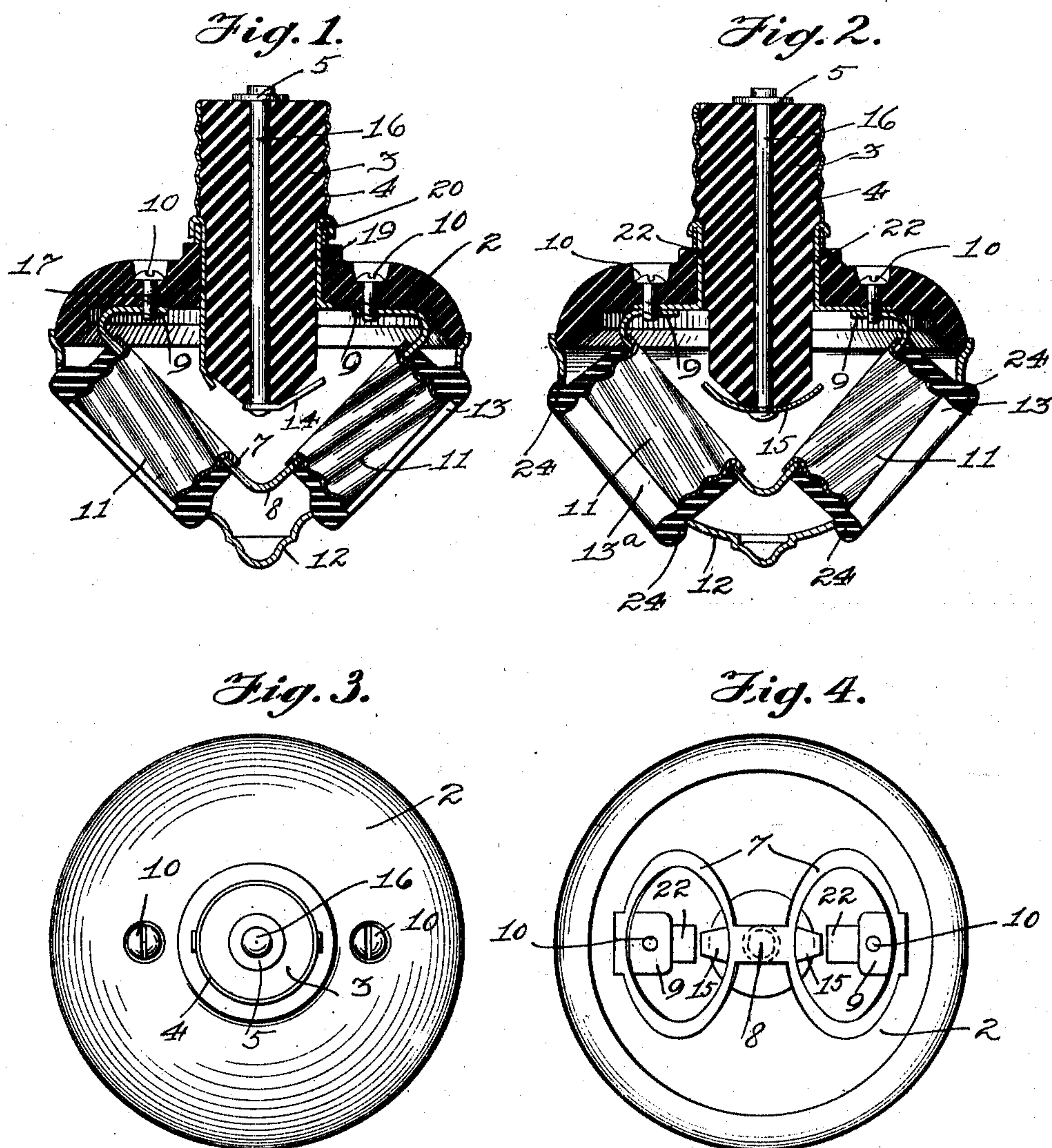


No. 759,962.

PATENTED MAY 17, 1904.

R. B. BENJAMIN.  
PLURAL LAMP SOCKET.  
APPLICATION FILED DEC. 9, 1901.

NO MODEL.



Witnesses:

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## UNITED STATES PATENT OFFICE.

REUBEN B. BENJAMIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO BENJAMIN ELECTRIC MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## PLURAL LAMP-SOCKET.

SPECIFICATION forming part of Letters Patent No. 759,962, dated May 17, 1904.

Application filed December 9, 1901. Serial No. 85,206. (No model.)

*To all whom it may concern:*

Be it known that I, REUBEN B. BENJAMIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Plural Lamp-Sockets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in electric-lamp clusters, and has for its objects the production of simplified apparatus of the kind described whereby an efficient, durable, and safe article is obtained at a comparatively small cost of manufacture.

In the accompanying drawings, in which the same reference characters designate like parts throughout the several views, Figure 1 is a sectional elevation of a cluster in the form of a plug-receptacle or plug-cluster, the contacts of this form being arranged in series. Fig. 2 is a similar view of a plug-cluster in which the lamps are in parallel in the circuit. Fig. 3 is an inverted plan view of my cluster; and Fig. 4 is a like view with the outer casing removed, showing more clearly the construction of the rings.

Referring first to Fig. 1, the insulating-base 2 is provided with a central plug portion 3, which carries the metallic threaded contact 4, corresponding to the outer or ring contact of an incandescent lamp of the well-known Edison type. A central contact 5 is also mounted on the plug 3 and coöperates with the center contact of the lamp-socket. On the inner face of the insulating-base 2 contact plates or rings 7 are mounted, having their approached or adjacent ends connected by the integral tongue 8 and having also the inwardly-turned ends 9, by means of which the said plates are secured to the inner face of the base 2 through the medium of the screws 10 10. These contact-plates 7 support the threaded contact-shells 11 11, which are adapted to receive and hold the incandescent lamps and to form the outer ring or sleeve terminal thereof. An outer cap 12 is provided for the cluster and is

held in place by means of the insulating-bushings 13, which are preferably composed of porcelain and are adapted to be threaded upon the said shells 11. It will be observed that when the cap is in place and the bushings are screwed in position the cap is insulated from the shells and is held up to place by means of the upper and outer edges of the said bushings. The center contacts of the lamps are formed by the radially-positioned spring-tongues 14, one being connected by means of a bolt, screw, or similar connecting device 16 with the contact 5 of the plug 3 and the other by means of a strip 17, preferably formed integral therewith, with the sleeve-contact 4 of the plug, the said strip extending through a suitable aperture in the base 2 and out at the side of the plug 3, where it may be soldered or connected in any suitable manner with said shell or outer contact 4. A strip 19 is secured to the sleeve 4 in the manner similar to the strip 17 and extends through the base 2, where it is bent outwardly, as shown at 20, to assist in holding the sleeve 4 in place upon the plug 3.

The electric circuits of the device are from the center contact 5 through the bolt 16 and contact 14, through the lamp placed in the right-hand socket to the outer contact 11, thence through the contact-plates 7 to the other sleeve-contact 11, and through the lamp placed in this socket to the center contact 14, and thence to the outer or sleeve contact 4 of the plug. When the cluster is inserted in the socket of an ordinary incandescent lamp, the sleeve 4 and the center contact 5 will engage with the proper terminals, and the cluster will be included in the circuit, as explained.

In the form of the invention shown in Fig. 2 the construction is substantially the same, except that the radially-placed center contacts 14 are formed upon opposite ends of the same strip 15 and are preferably of spring material, as shown. The strip 15 is connected with the center contact 5 by the screw 16, as above explained. The contact-plates 7 7 in this instance are connected by means of metallic strips 22 22, one on each side of the plug 3,



with the shell 4. The screws 10 10 in this instance serve to firmly connect the strips 22 to the contact-plates 7. The cap 12 is sustained in this instance by means of insulating-bushings 13<sup>a</sup>, which are provided with enlarged edges or raised ribs 24, adapted to project over the edges of the apertures in the cap 12 to positively hold it in position. It will be apparent that in this form of the invention the lamps are connected in the circuit in parallel, since the spring-terminals 14 14 are connected together and to one contact of the plug, while the individual plates 7 are also connected together and to the other plug-contact.

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

1. A plug-cluster comprising a base carrying a plug and associated contacts adapted to be inserted in a lamp-socket, and a plurality of lamp-holding devices and associated contacts electrically connected between said plug-contacts, substantially as described.

2. A plug-cluster comprising a base carrying upon one side a plug and associated contacts, and upon the other side a plurality of lamp-holding devices and associated contacts connected between said plug-contacts, substantially as described.

3. In a plug-cluster, the combination with a suitable base, having a plug and a plurality of lamp-holding devices carried thereon, of contacts on said plug to cooperate with the contacts of a suitable socket, lamp-terminal contacts associated with the said devices, and electrical connections between the contacts of the said plug and the lamp-terminal contacts, substantially as described.

4. In a plug-cluster, the combination with an insulating-base having a plug on one side and a cluster on the other, of contacts mounted on the said plug, lamp-contacts associated with each socket of said cluster, and suitable connections extending between the plug-contacts and those of the sockets of the cluster, substantially as described.

5. In a plug-cluster, the combination with an insulating-base having a plug on one side and a cluster on the other, of an outer contact mounted upon said plug, a center contact mounted at the end and centrally of said plug, lamp-contacts associated with each socket of said cluster, and electric connections extending between the said plug-contacts and those of the sockets of the cluster, substantially as described.

6. In a plug-cluster, the combination with an insulating-base, having a plug on one side and a cluster on the other, of a threaded shell-contact surrounding said plug, a center contact mounted upon the end of said plug, and metallic strips passing through said base and secured at their outer ends to said shell, substantially as described.

7. In a plug-cluster, the combination with

an insulating-base having a plug on one side and a cluster on the other, of contacts mounted on said plug comprising a threaded metallic shell surrounding the same and a center contact mounted upon the end of the plug, metallic strips extending through said base and connected at their outer ends with said shell, said strips serving to hold the shell in place and to form electrical connections with the contacts of the cluster, substantially as described.

8. In a plug-cluster, the combination with an insulating-base having a plug on one side and a cluster on the other, of a threaded shell mounted upon the plug to form the outer contact therefor, a center contact for the same, a contact-plate mounted upon the inner face of said base and adapted to carry the lamp-holding devices, metallic strips extending through said base and connected at their outer ends with the metallic shell and at their inner ends with the ends of said plate, substantially as described.

9. In a plug-cluster, the combination with an insulating-base having a plug upon one side and a projection upon the other opposite the plug, a cluster also on the second-mentioned side of the base, contacts mounted upon said plug, lamp-contacts associated with each socket of said cluster, the center contacts thereof being mounted upon said projection and a bolt passing through said plug and projection to connect the center contact of the plug and a center contact of the cluster, substantially as described.

10. In a plug-cluster, the combination with an insulating-base having a plug on one side and a projection opposite the plug upon the other side, an outer contact for the plug, a center contact therefor, a cluster mounted upon the opposite side of the base, a plate forming the central contacts for the lamps of the cluster mounted upon the end of said projection, and a bolt passing through said plug and projection to secure the central contacts of the plug and lamps in position and to electrically connect them, substantially as described.

11. In a plug-cluster, the combination with a circular base, of a plug upon one side thereof, contacts therefor mounted upon the plug, a cluster carried upon the other side of the base, a cover for the lamp-holding devices of the cluster having its edges fitting over the periphery of the base, substantially as described.

12. In a plug-cluster, the combination with an insulating-base having a plug formed upon its outer face and a depression in its inner face, contacts for the plug mounted on the plug, a cluster carried upon the inner face of the base, a contact-plate for the cluster carrying the lamp-holding devices mounted in said depression and secured to the base, a projection formed centrally upon said inner face, and center contacts for the lamps mounted



upon said projection, substantially as described.

13. A plug-cluster, a base having the plug-contacts on one side and the lamp contacts and  
5 receivers upon the other side, of a cover having an opening opposite each lamp-receiver, substantially as described.

14. In an electric fixture, the combination  
10 with a base carrying terminals, of a plug carried by the base, and a plurality of sockets also carried by the base, the terminals of the sockets being connected in parallel with respect to each other, the terminals carried by  
15 the base being common to the terminals of the sockets.

15. In an electric fixture, the combination  
20 with a plug having one terminal in the form of a threaded sleeve and a second central terminal, of a plurality of sockets, each provided with a terminal in the form of a threaded  
25 sleeve and a second terminal, the said plug and sockets being mechanically united to form an integral structure.

16. In an electric fixture, the combination  
25 with a plug, having one terminal in the form of a threaded sleeve and a second central terminal, of a plurality of sockets, each provided with a terminal in the form of a threaded  
30 sleeve and a second central terminal, the said plug and sockets being mechanically united to form an integral structure, and two terminals common to the terminals of the plug and to the terminals of the sockets.

17. In an electric fixture, the combination  
35 with a plug, having one terminal in the form

of a threaded sleeve and a second central terminal, of a plurality of sockets, each provided with a terminal in the form of a threaded sleeve and a second central terminal, the said  
40 plug and sockets being mechanically united to form an integral structure, two terminals common to the terminals of the plug and to the terminals of the sockets, and conductors connecting the terminals of the sockets in parallel.  
45

18. In an electric fixture, the combination  
50 with a plug, having one terminal in the form of a threaded sleeve and a second central terminal, of a plurality of sockets, each provided with a terminal in the form of a threaded  
55 sleeve and a second central terminal, the said plug and sockets being mechanically united to form an integral structure, two terminals common to the terminals of the plug and to the terminals of the sockets, and a base interposed between the plug and the sockets carrying the said terminals.

19. In an electric fixture, the combination  
60 with a plug, of a base therefor, a plurality of sockets mechanically united, and a fastening device for separably securing the mechanically-united sockets to the base.

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

REUBEN B. BENJAMIN.

Witnesses:

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M. R. ROCKFORD