

J. H. DALE.
CLUSTER LAMP SOCKET.
APPLICATION FILED MAY 6, 1908.

958,729.

Patented May 24, 1910.

Fig. 1.

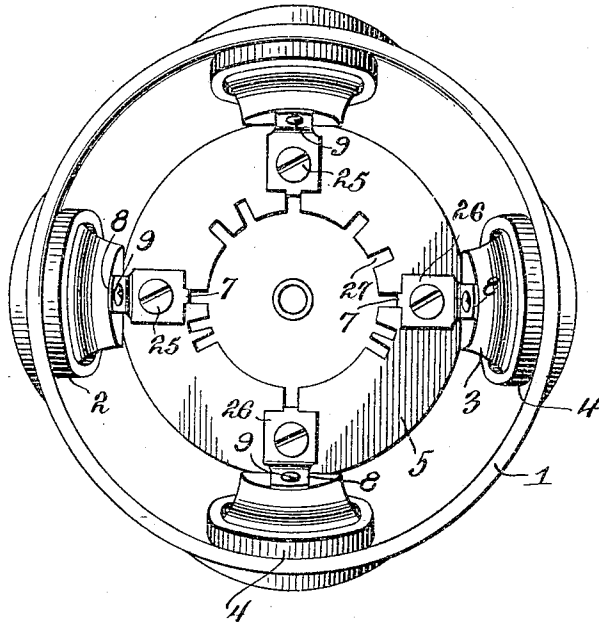


Fig. 2.

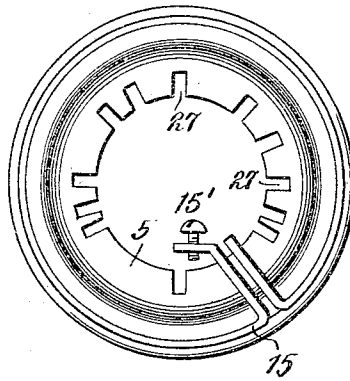
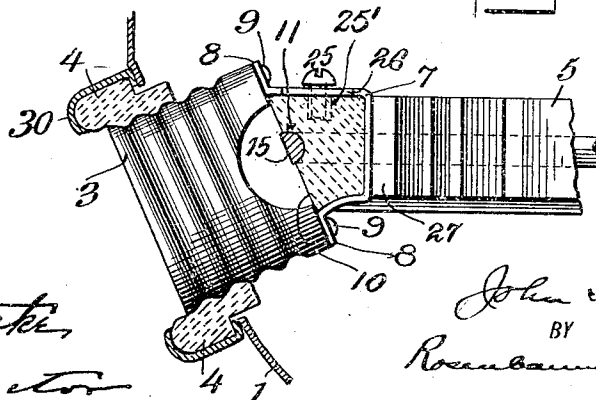


Fig. 3.



WITNESSES:

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CLUSTER LAMP-SOCKET.

958,729.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN H. DALE, a citizen of the United States, residing at the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cluster Lamp-Sockets, of which the following is a full, clear, and exact description.

My invention relates to cluster lamp sockets, particularly of that type having a substantially hemi-spherical casing from which the lamps project symmetrically outward in directions which are generally radial to the surface of said casing.

In my co-pending application Serial No. 431,145 and also in an application Serial No. 384,496, filed by Edward Le Febvre, there is set forth a construction for the above purposes making use of an insulating ring of porcelain or similar material. The present application covers a form of construction also making use of this ring construction and having improved means or features by which the threaded shells are held upon the ring, and the center contact established. For this purpose, I secure the threaded shells to the insulating ring by loops or straps which pass around and through the center of the latter. The center contacts or connections are established by a band or ring on the exterior periphery of said insulating ring which lies in a zone corresponding to the center contacts of the lamps. I also provide for assembling the parts to form receptacles for different numbers of lamps.

A still further object of the invention is to strengthen, protect and impart a uniform or ornamental appearance to the exposed portions of the porcelain bushings commonly used in this class of apparatus.

With these various and other objects in view, my invention consists in the features of construction and combination, as hereinafter set forth and claimed.

In the drawings, Figure 1 is a top or plan view of a cluster socket embodying the principles of my invention. Fig. 2 is a detail view of the insulating ring and center contact means. Fig. 3 is a detail sectional view showing the method of mounting the threaded shells.

Referring to the drawings in which like parts are designated by the same reference sign, 1 indicates a casing conveniently of spun sheet metal and which has peripheral openings 2 for the various lamp sockets.

3 designates the threaded or other shells received and held in openings 2 by means of insulating bushings 4. The various threaded shells are mechanically connected together by a central insulating ring 5, which has an additional function of supporting the center contacts. The threaded shells project outward from the ring 5, being connected thereto in a special manner forming an important part of the present invention. I provide loops or straps 7 of flexible sheet metal which are adapted to be tightly bent around the ring 5, passing through the central opening thereof and connected with the threaded shells. The preferred construction is that best shown in Fig. 3, in which the straps have bent extremities 8 which are secured to the threaded shells by rivets 9. I prefer to make the ring 5 with an exterior, tapered or conical face 10 with an equatorial or circumferentially extending groove 11. In this groove, I seat a continuous or other metallic ring or band 15, which constitutes the center contact means for the lamps. It is evident that this ring is adapted to be readily inserted in its containing groove on account of the conical surface 10 of the ring, which expands and guides said center contact ring into place.

The circuit connections with the lamp receiving shells are made in any convenient way. I have illustrated screws 25 received in enlarged portions 26 of the loops or straps 7, at points on the upper surface of the insulating ring 5.

25' designates cavities or recesses in said upper surface of the ring at points directly beneath the screws 25, so that the latter may be screwed downward to engage a circuit wire or wires. It is evident that either multiple, series multiple, three wire, or separate circuits may be established. For series multiple or three wire circuits, it is merely necessary to connect one circuit wire to half of the terminal screws 25, and the other circuit wire to the other half of said terminal screws. If there is a neutral wire, it may be connected to the terminal screw 15' of the center contact ring 15.

In order that the threaded shells may be properly spaced apart around the ring 5, I provide grooves or notches 27 on the exterior surface of said ring, in which the interior portions of the loops or straps 7 are received. A considerable number of grooves 27 are provided corresponding to various

angular relations of the threaded shells, so that by employing different grooves, the threaded shells may be symmetrically spaced apart for any number of lamps from two to six.

I may provide an ornamental finish for the exposed portions of the bushings 4 by the simple expedient of spinning a metal cap or covering 30 thereover, which, however, does not extend sufficiently far around toward the cavity of the socket to endanger a ground on the threaded base of the lamp, particularly when the latter is fully screwed against the center contact. While I have shown the sheet metal cap or covering 30 applied to a bushing 4 of this particular character, I do not desire to be limited or restricted to this use of such cap or covering. In some cases, the threaded shells are received in porcelain sockets which have an exposed rim or bead at their lamp receiving ends, and it is evident that the cap or covering is equally applicable for use in such a connection. In any use of this metallic cap or covering, it is advantageous to protect and strengthen the porcelain, and also to impart a uniform finished appearance to the exterior of the device. This latter feature is particularly advantageous in a cluster socket, since the casing 1 is ordinarily made of finished brass, and it is desirable to have the surface and appearance of the exposed bushings or sockets correspond to that of the surrounding casing.

What I claim, is:—

1. In a cluster socket, an insulating ring, threaded shells having loops or straps surrounding said ring and securing said shells thereto, and means affording center contacts.

2. In a cluster socket, an insulating ring, threaded shells having loops or straps surrounding the same and securing said shells thereto, means for positioning said shells, on said ring in predetermined spaced-apart relation, and means affording center contacts.

3. In a cluster socket, a notched insulating ring, threaded shells having loops or straps surrounding said ring and securing said shells thereto, said loops or straps having portions entering the notches of said ring

whereby they are maintained in properly spaced-apart relation, and means affording center contacts.

4. In a cluster socket, an insulating ring having a peripheral groove, a metallic ring or band received in said groove and affording center contacts, threaded shells, and loops or straps riveted to said shells and surrounding said insulating ring whereby the shells are tightly held thereto.

5. In a cluster socket, a casing having holes, porcelain bodies received in said holes and having headed or beaded portions lying outside the casing, and sheet metal coatings covering said headed or beaded portions to protect and strengthen the same.

6. In a cluster socket, a casing having holes, hollow porcelain bodies received in said holes and having headed or beaded portions lying outside the casing, and sheet metal coatings formed on said headed or beaded portions to protect and strengthen the same, said coatings terminating short of the hollow interior of said bodies, as and for the purpose set forth.

7. In a cluster socket, a casing having holes, bushings received in said holes, and having headed or beaded portions lying outside the casing, and sheet metal coatings covering said headed or beaded portions to protect and strengthen the same.

8. In a cluster socket, an insulating ring having a grooved conical peripheral surface, threaded shells having loops or straps surrounding said ring and securing said shells thereto, and a ring or band received in the groove of said conical surface and affording center contacts.

9. In a cluster socket, an insulating ring, lamp receiving shells having loops or straps surrounding said ring and securing said shells thereto, separate terminal screws on said loops or straps, and means affording center contacts.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

JOHN H. DALE.

Witnesses:

WALDO M. CHAPIN,
JAMES DE ANTONIO.