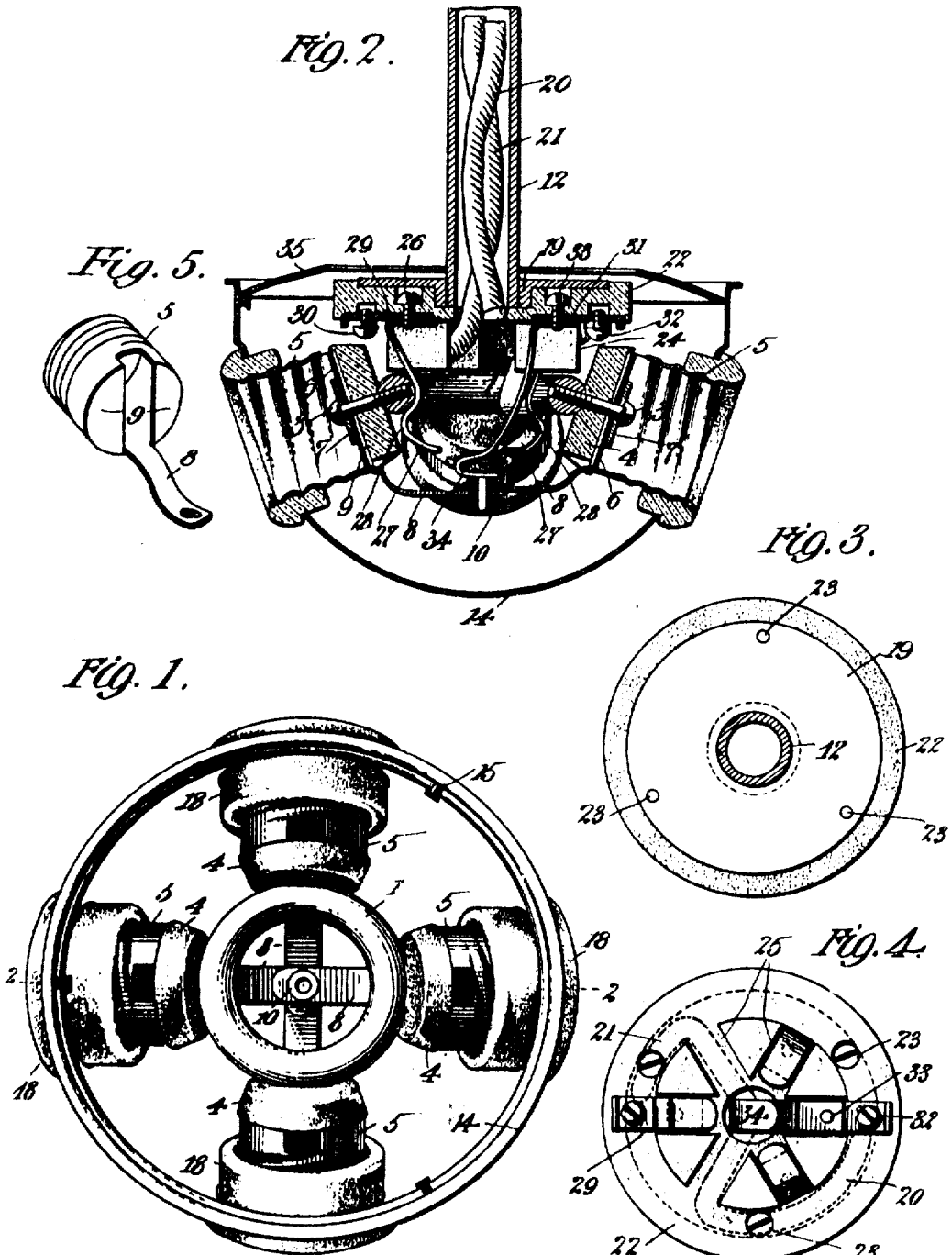


C. D. GERVIN.
CLUSTER LAMP SOCKET.
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Witnesses:
Charles D. Gervin
Waldo M. Chapin

Inventor
Charles D. Gervin
By the Attorneys
Rosenbaum & Co. New York

UNITED STATES PATENT OFFICE.

CHARLES D. GERVIN, OF NEW YORK, N. Y., ASSIGNOR TO JOHN H. DALE, OF
NEW YORK, N. Y.

CLUSTER LAMP-SOCKET.

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To all whom it may concern:

Be it known that I, CHARLES D. GERVIN, a citizen of the United States, residing at New York, in the borough of Manhattan 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 wireless clusters in which there is a lamp holding structure adapted to receive a plurality of lamps, and has for its object the provision of improved means for supporting and applying current to said lamp holding structure, said means permitting the lamp holding structure to be readily removed from or applied to its support whereby the latter may be placed in the building when it is being wired and the lamp-holding structure applied later without the necessity of connecting any wires thereto, and whereby a shade having a central opening of ordinary size may be applied to or removed from a shade holder above the cluster without the necessity of disconnecting any wires therefrom.

With these ends in view my invention consists in the features hereinafter set forth and claimed.

In order that the invention may be more fully understood, reference is made to the accompanying drawing, of which—

Figure 1 is a plan view of the lamp-holding structure of a cluster, the supporting and current-applying means being removed therefrom to expose the interior of the cluster; Fig. 2 is a section on line 2—2 of Fig. 1, showing the entire cluster in assembled form; Fig. 3 is a plan view of the supporting and current-applying means; Fig. 4 is a bottom plan view of the same, and Fig. 5 is a detail perspective view of one of the threaded shells.

In the cluster shown the central conductor is in the form of a rigid ring 1 of circular cross-section, said ring being preferably of brass or other metal. This ring is drilled and tapped to receive the screws 3, of which there is one for each lamp socket and which are of metal and act as the center contacts and also as means for securing the threaded shells in position. Upon each of the screws 3 and secured by the head thereof is a washer 7, preferably of brass, a disk 6 of mica, or other insulating material, an insulating disk or button 4, which may be of

porcelain or other suitable material, and a cup shaped threaded shell 5, the bottom of which is cut out to form a flexible tongue 8, and flanges 9. The flanges 9 are situated between the insulating disks 6 and 4 and the washer 7 is of greater diameter than the space between the said flanges. The parts being thus assembled upon the screws 3, the latter is inserted within the bore 2 and screwed firmly into position thereby rigidly clamping together the various parts which have been described. Any suitable means may be provided for electrically connecting the shells 5, but in the cluster shown, the flexible tongues 8 are brought together at a central point and united by a metallic bushing 10, the ends of which are upset so as to bind the tongues tightly together. There is a cover 14, in the form of a hemispherical shell, preferably of brass, formed with openings through which the several threaded shells extend, and insulating bushings 18 of porcelain or other suitable material are threaded upon the exterior of the shells 5, and the flanges formed on said bushings bear against the edges of the openings in the cover and draw the cover and threaded shells into a rigid structure.

The means for supporting and applying current to the lamp holding structure comprise a supporting base which consists of a flanged plate 19, adapted to be threaded upon the lower end of the conduit 12, through which the line wires 20 and 21 pass, and an insulating block or disk 22 of porcelain or other suitable material which is secured to said plate 19 in any suitable manner, as by screws 23 countersunk in said disk. The disk 22 is provided with a depending portion 24, formed with a series of radial grooves 25, and secured within the said grooves by screws 26 are a plurality of spring tongues 27, of the form shown, said tongues being capable of yielding laterally at their free ends so as to allow the ring 1 to pass the shoulders 28, formed in the said tongues, and occupy the bend formed in the tongues immediately beyond said shoulders, as shown in Fig. 2. By pulling downward on the lamp-holding structure, the ring 1 will bear against the shoulders 28 and cause the tongues to bend inward sufficiently to allow the ring to slip over the said shoulders, whereby said lamp-holding structure may be readily removed from its support.

The tongues 27 serve to support the ring 1 and the parts carried thereby, and one of the tongues applies current to said ring, being clamped upon a contact plate 29 by the screw 26. Said contact plate is provided with a binding screw 30, for securing the end of the line wire 21. The other line wire 20 is secured to a contact plate 31, by a binding screw 32, and said plate is secured to the block 22 by the screw 33, which also secures a downwardly extending spring tongue 34 of the form shown. The lower end of this tongue presses against the end of the bushing 10 and electrically connects the same with the plate 31.

In order to cover the space between the hemispherical cover 14 and the disk 22, an annular plate 35 is provided and the same rests upon a plurality of pins 15 secured to the cover 14. It should be noted that the diameter of the disk 22 is substantially less than the diameter of the cover 14, so that a shade having an opening of ordinary size may be passed over the disk 22 when the cover 14 and the parts carried thereby are removed, and secured to a shade holder applied to the pipe or conduit 12.

Having now described my invention, what I claim, is:—

1. In a cluster socket, the combination of a central ring-shaped conductor, insulating means secured thereto, a plurality of radially extending threaded shells applied to said insulating means, a supporting base, and a plurality of yielding spring tongues secured to said base and adapted to engage said ring to support the same.

2. In a cluster socket, the combination of a supporting base, a plurality of yielding tongues depending therefrom, a conducting ring adapted to be applied to said tongues so as to be supported thereby, and a plurality of lamp-holding devices secured to said ring.

3. In a cluster socket, the combination of a supporting base, a plurality of spring tongues depending therefrom and formed with supporting shoulders, and another spring tongue supported by said base and insulated from said first tongues and means for applying current to said tongues.

4. In a cluster socket, the combination of a central conductor, insulating means secured thereto, a plurality of threaded shells applied to said insulating means, a supporting base, and a plurality of yielding tongues secured to said base and adapted to engage said conductor to support the same.

5. In a cluster socket, the combination of a supporting base, a plurality of yielding tongues depending therefrom, a central conductor applied to said tongues so as to be supported thereby, and a plurality of lamp holding devices secured to said conductor.

6. In a cluster socket, the combination of

a lamp holding structure adapted to receive a plurality of lamps, and a support therefor, one of said members being provided with a central conductor, and the other with a plurality of yielding tongues having shoulders adapted to interlock with said conductor.

7. In a cluster socket, the combination of a lamp holding structure adapted to receive a plurality of lamps, and a support therefor, one of said members being provided with a central conductor, and the other with a plurality of yielding tongues having shoulders adapted to engage said ring and lock said members together.

8. In a cluster socket, the combination with the lamp-holding structure comprising a ring conductor and a separate contact, the two being connected with the terminals of the different lamp sockets, of a supporting base, comprising a plurality of spring contacts electrically connected to opposite sides of the supply circuit, one or more of the same being adapted to engage said ring conductor for supporting the lamp-holding structure for connecting said conductor with one side of the circuit, and another of the same being adapted to engage said separate contact.

9. In a cluster socket, the combination with the lamp-holding structure comprising a pair of contact members insulated from each other, one of the same being in the form of a ring and a plurality of lamp sockets electrically connected thereto, of a supporting base, and means carried thereby and adapted to interlock with the ring contact member to support the same and apply current thereto by a movement of the lamp-holding structure in a straight line toward the supporting base.

10. In a cluster socket, the combination with the lamp-holding structure comprising a pair of contact members insulated from each other, one of the same being in the form of a ring and a plurality of lamp sockets electrically connected thereto, of a supporting base, and combined electrical and mechanical means carried thereby and adapted to interlock with the contacts of said lamp-holding structure to support the latter and apply current to said contact members by a movement of the lamp-holding structure in a straight line toward the supporting base.

11. In a cluster socket, the combination with the lamp-holding structure comprising a pair of contact members insulated from each other, one of the same being in the form of a ring and a plurality of lamp sockets electrically connected thereto, of a supporting base, and spring-actuated means carried thereby and adapted to interlock with the contacts of said lamp-holding structure to support the latter and apply current to said contact members by a movement of

the lamp-holding structure in a straight line toward the supporting base.

12. In a cluster socket, the combination with a lamp-holding structure comprising a ring conductor and a separate contact, of a supporting base, a plurality of spring tongues depending therefrom and formed with supporting shoulders, and another spring tongue supported by said base and

insulated from the first tongues, the said 10
tongues coöperating respectively with said conductor and contact.

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

CHARLES D. GERVIN.

Witnesses:

WM. M. STOCKBRIDGE,
FRANK S. OBER.