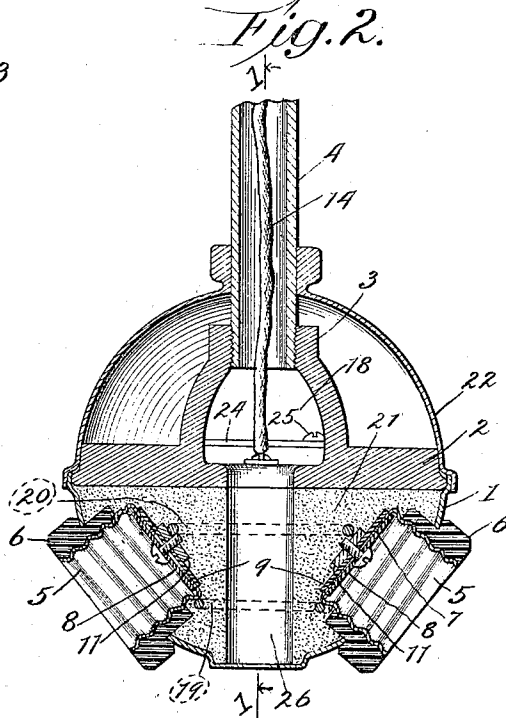
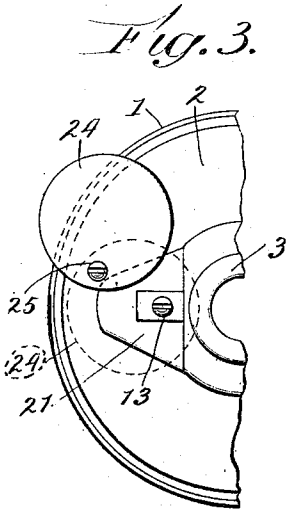
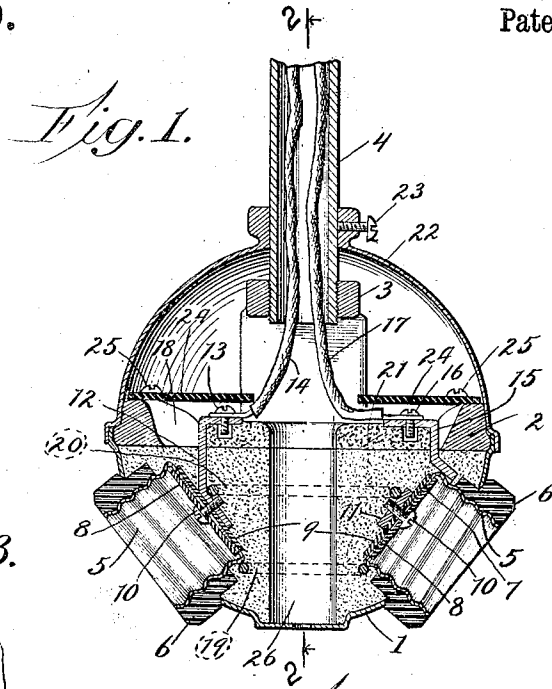


N. WEEKS.
PLURAL LAMP SOCKET.
APPLICATION FILED OCT. 12, 1904.

1,043,179.

Patented Nov. 5, 1912.



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UNITED STATES PATENT OFFICE.

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PLURAL LAMP-SOCKET.

1,043,179.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed October 12, 1904. Serial No. 228,176.

To all whom it may concern:

Be it known that I, NELSON WEEKS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Plural Lamp-Sockets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to plural lamp sockets and has for one of its objects the production of a filled, or molded cluster adapted to mechanically support and electrically connect a plurality of incandescent electric lamps in circuit.

In accordance with my invention, I provide a body of suitable plastic material possessing insulating properties and I embed therein a plurality of lamp receivers and associated contacts arranged in clustered form, the same being connected in the desired electrical relation by means of conductors likewise embedded in the body of plastic material; binding posts are mounted exterior to the body of plastic material and connected with the socket contacts by electrical conductors. In order to protect the body of plastic material against injury and to provide a finishing, I have shown a casing upon the exterior of the body of plastic material having suitable openings opposite the lamp receivers to accommodate the passage of the lamp bases. I preferably provide insulating bushings secured to the exterior of the threaded shells of the lamp receivers, the inner ends of the bushings being embedded in the body of plastic material, while the outer ends project through the openings in the casing. I preferably provide a metallic back plate upon the rear of the body of plastic material, which serves as the support for the cluster. The back plate may be provided with a threaded aperture or other suitable means for the attachment of a conduit. In practice, I preferably mount the binding posts at the rear of the cluster, although this location is not essential, and the binding posts may be otherwise disposed. The binding posts should preferably be normally inclosed and I may accomplish this by the provision of a removable cover which will ordinarily inclose the binding posts, but

which may be removed or withdrawn to afford access to the binding posts. This cover may, at the same time, form a finishing cap for the rear of the cluster. When the back plate is employed upon the rear of the cluster, I preferably provide openings therethrough, within which the binding posts are situated. When the binding posts are thus placed, I may employ individual caps or covers for the separate binding posts, which individual covers or caps may be used in conjunction with, or to the exclusion of, the common inclosing cover above mentioned.

I shall disclose my invention in connection with one form of cluster which I have worked out for practical purposes, and which is illustrated in the accompanying drawings, but it will be understood that by illustrating and describing one specific embodiment of my invention, I do not desire to limit myself to the one specific structure. Nor do I wish to confine myself to a cluster containing all of the features of invention which are present in this particular structure. I shall, therefore, describe the device as a whole, subsequently pointing out in the claims the several features of invention, upon which I desire protection, referring to the drawings, in which—

Figure 1 is a sectional view taken on the line 1—1 of Fig. 2; Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1; and Fig. 3 is a detailed view with the upper cap or casing removed.

In the drawings like reference numerals are used to designate similar parts in the several figures.

In the form of my invention illustrated in the drawings, a thin metal cap or casing 1 is provided, preferably semi-spherical in form, although any desired form of casing may be used, the peripheral edge of said casing being preferably turned or spun over a bead formed upon the metal disk 2, said disk having an upwardly extending screw-threaded portion 3 adapted to receive the screw-threaded end of a pipe or conduit, said conduit being adapted to secure the cluster in position and to serve as a channel for admitting the leading-in wires to their respective binding screws. The cap or casing 1 has a plurality of apertures concentrically arranged therein, adapted to accom-

modate screw-threaded lamp receiving shells 5, 5.

Internally screw-threaded insulated bushings 6, 6, are disposed between the lamp receiving shells 5, and the apertures in the casing 1 to insulate said shells therefrom. Said bushings preferably have a shoulder formed upon the outer edge thereof, adapted to effectually close the aperture in the casing 1, though this is not essential and it will be understood that any suitable insulating means may be used in lieu of the insulating bushings above described. The lamp receiving shells have inturned annular flanges 7, 7, formed thereon, a disk of mica 8 being preferably disposed in the bottom of each of said shells, a second disk of mica 9 being placed upon the exterior of said inturned annular flanges, said disks of insulating material being adapted to protect the filling to be hereinafter described, and to retain said filling within the casing 1.

The center lamp contacts 10, 10, are shown as screws, or bolts, passing through the insulating members 8 and 9, and engaging nuts 11, 11. One of said center contact screws engages an upwardly extending contact plate 12, as shown in Fig. 1.

It will be understood that the inwardly extending flanges 7, of the lamp receiving shells 5, are not essential to my invention and that any suitable supporting, protecting and insulating means, for insulating and supporting the center lamp contacts and for protecting the filling in the casing 1, may be adopted in lieu of the mica plates or disks 8 and 9.

The contact plate 12 carries a binding screw 13 for making connection with one of the leading-in wires 14 and a similar contact plate 15 is secured in any suitable manner to one of the lamp receiving shells 5, said plate carrying a binding screw 16, for making connection with the other leading-in wire 17. The metal disk 2 which constitutes the back or supporting plate has a cut-out portion 18, extending through the upwardly extending screw-threaded portion 3 thereof, as shown in Fig. 2, said cut-out portion of the disk 2 being adapted to permit the leading-in wires to be readily connected to their respective binding screws.

An annular conductor 19, preferably of wire, is soldered or secured, in any suitable manner, to the lamp receiving shells 5, 5, and is adapted to electrically connect said shells and the contact plate 15. A similar conductor 20 is secured to the nuts 11, 11, connected with the center contacts for the lamps, and is adapted to electrically connect said center contacts with the contact plate 12. The wires constituting the electrical connectors may be arranged to connect the several socket contacts in any desired circuit arrangement.

After the above elements have been placed in their proper relative positions within the casing 1, a melted insulating compound 21, is poured into said casing. The melted compound runs in and about the different parts of the cluster, said compound being adapted to readily cool and harden and is adapted to support the parts of the cluster securely within the casing, and in their proper relations one to the other, and to insulate the live parts of the cluster from the metal disk 2 and the inclosing casing 1. I prefer to use a compound of paraffin, rosin and pitch, although any suitable material that will readily harden sufficiently to support the internal parts of the socket in their relative positions, and that will insulate the conductors and other live parts of the socket, may be adopted in lieu of the compound above mentioned. An aperture 26 may be left in the center of the socket for the purpose of economy in the filling 21 and to lighten the weight of the cluster, although the entire body of the cluster may be filled, if desired.

Instead of molding the plastic material within a casing, as above mentioned, it may be molded in any desired manner to procure a body of plastic material with the clustered lamp receiving shells, center contacts and electrical conductors embedded therein, and in electrical connection with the binding posts arranged upon the exterior of the body of plastic material.

A metal inclosing cap 22 is provided for the socket, adapted to rest upon the disk 2, the edges thereof preferably overlapping the casing 1, said cap having a central aperture therein, through which the conduit or supporting pipe 4 is adapted to pass and being secured in position upon the disk 2 by a set screw 23, adapted to engage said conduit. By removing or withdrawing the cap or cover 22, access may be gained to the binding posts which are normally inclosed thereby.

Sliding covers 24, 24, are adapted to close the aperture 18, formed in the disk 2, and to insulate the binding screws 13 and 16 from the inclosing cap 22. Said covers are secured to the disk 2 by screws 25, 25, and are adapted to turn upon said screws to afford access to the binding posts 13 and 16 when the cap 22 is removed, as shown in Fig. 3.

I have illustrated and described one method of embodying my invention in a practical lamp cluster and have referred particularly to the details of construction, but I am aware that said details are not important, except for the purpose of revealing my invention to others, and in practice I claim the right to make such changes in the construction herein shown and described, as fairly fall within the scope of my invention.

Having described my invention what I

claim as new and desire to secure by Letters Patent is:

1. In a cluster lamp socket, a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, binding posts associated with said electrical conducting parts and situated exterior to said body of plastic material, and a supporting or back plate upon the rear of said body of plastic material.

2. In a cluster lamp socket, a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, binding posts associated with said electrical conducting parts and situated exterior to said body of plastic material, and a back plate secured to the rear of said body of plastic material and provided with a conduit-receiving aperture.

3. In a cluster lamp socket, a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, associated exterior binding posts, and a finishing casing or covering having openings opposite the respective lamp receiving shells to accommodate the lamp bases.

4. In a cluster lamp socket, a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, associated exterior binding posts, a finishing casing or covering having openings opposite the respective lamp receiving shells, and insulating bushings surrounding said shells having the inner ends embedded in said plastic material and the outer ends extending through the openings in said casing.

5. A cluster lamp socket comprising a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, binding posts associated with said electrical conducting parts and situated exterior to said body of plastic material, and a supporting or back plate upon the rear of said body of plastic material.

6. In a cluster lamp socket, a body of plastic or moldable material, clustered lamp receiving shells, contacts and electrical connectors embedded therein, a supporting back plate having recesses therein, binding posts mounted to the rear of said body of plastic material and within said recesses, and a detachable cover normally inclosing said binding posts.

7. In a plural lamp socket, the combination with a suitable base, of a casing associated therewith, a plurality of lamp holding devices and associated contacts arranged within said casing, an insulating filling for said casing, a pair of binding screws common to said lamp holding devices and contacts, and a removable insulating cover for said binding screws.

8. In a plural lamp socket, the combination with a suitable inclosing casing, having a plurality of apertures formed therein, lamp holding devices registering with said apertures, insulating bushings disposed between said casing and said devices, an insulating filling for said casing, said filling being adapted to mechanically support said devices and their associated parts in position.

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

NELSON WEEKS.

Witnesses:

SEWARD DAVIS,
OLIVER WILLIAMS.