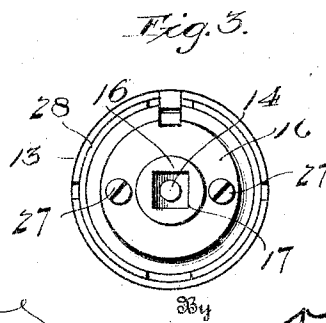
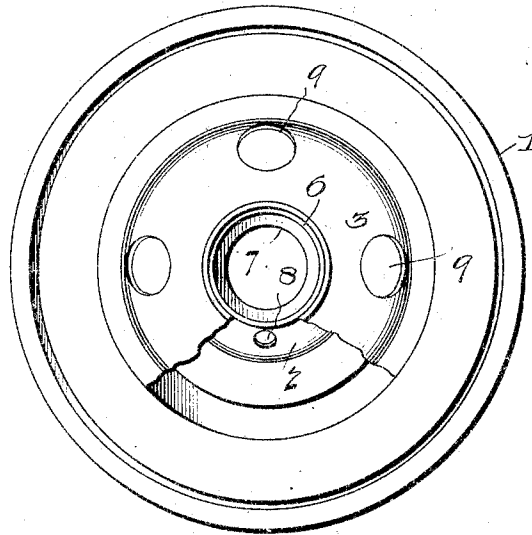
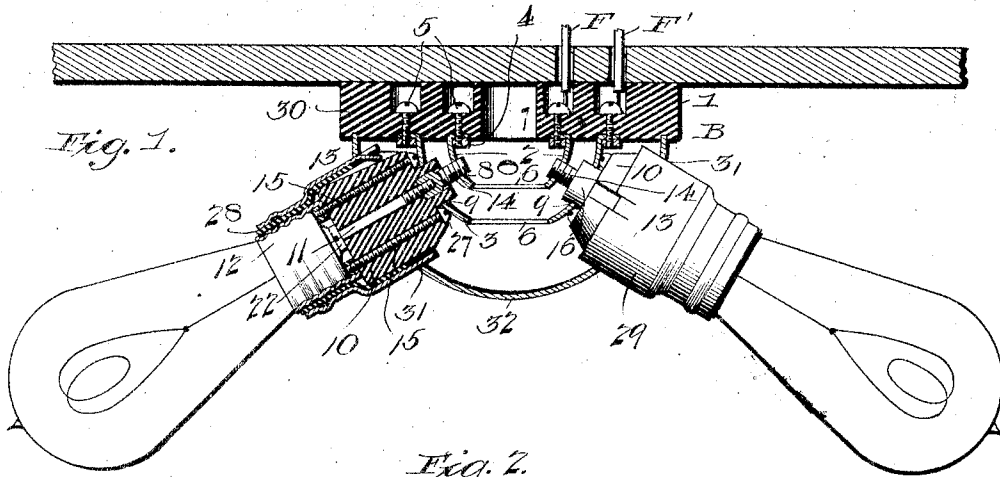


F. J. RUSSELL.
PLURAL LAMP FIXTURE.
APPLICATION FILED OCT. 20, 1906.

902,004.

Patented Oct. 27, 1908.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

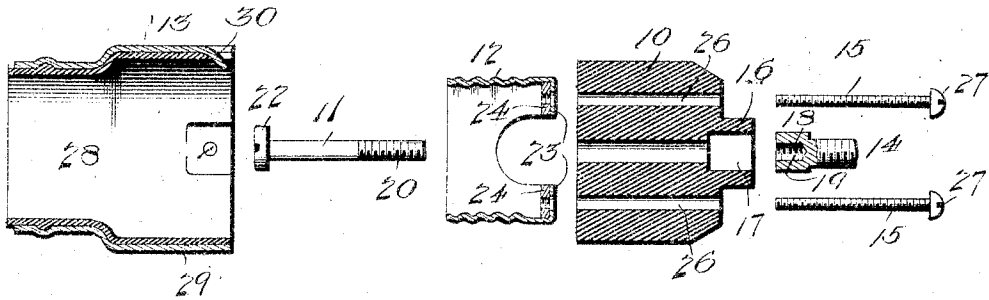


Fig. 5.

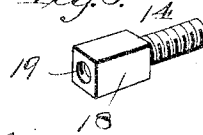


Fig. 6.

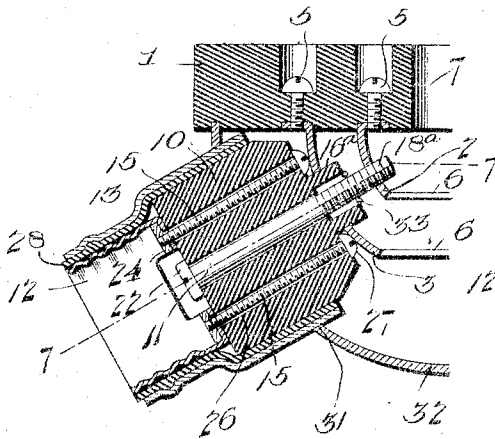


Fig. 7.

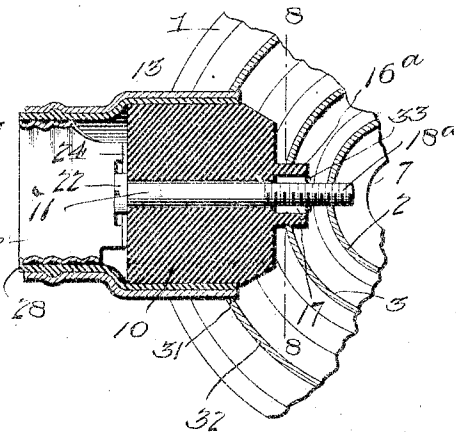
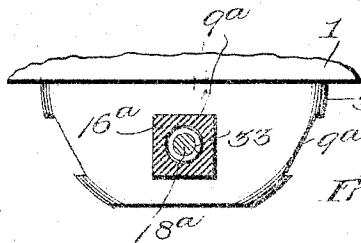


Fig. 8.



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PLURAL-LAMP FIXTURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK J. RUSSELL, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Plural-Lamp Fixtures, of which the following is a specification.

This invention relates to that type of electrical appliances known as plural lamp fixtures and usually termed commercially lamp clusters, which class of appliances are characterized by a single fixture embodying in its organization means for supporting and electrically connecting up a cluster or plurality of electrical connecting plugs, such as electric lamp plugs or extension circuit plugs.

The type of fixture referred to is commonly employed for carrying and feeding a cluster of incandescent electric lamps, but, irrespective of the particular use to which the fixture or cluster may be appropriated, the present invention has for its main and primary object the provision of a plural lamp fixture of an exceedingly simple, practical and effective construction. To this end the invention contemplates a plural lamp fixture wherein great simplicity and compactness are preserved in not only the base or supporting member of the cluster, but also in the electrical receptacles associated therewith. In this connection, a distinctive feature of the invention resides in the equipment of the base or supporting part of the cluster with simply the wire terminal elements, and associating therewith a plurality of readily removable or detachable receptacles which may be characterized as self contained units, inasmuch as each receptacle is designed to support and carry all of the parts necessary for proper electrical contact with the connecting plug for the lamp, while at the same time embodying assembly or coupling means for connecting the receptacle to the base or supporting part of the cluster. Hence, an important object of this invention resides in the provision, in a plural lamp fixture, of a self-contained receptacle unit carrying both of the plug contacts, and utilizing one of the latter as an assembling means for fastening the unit to the cluster or cluster bracket and at the same time drawing and holding the connections for the other plug contact in metallic and electrical connection with the wire terminal element cooperating therewith.

A further object of the invention is to provide an improved construction of electrical unit wherein a single base section is utilized as the supporting means for all parts of the unit.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

The essential features of the invention involved in a construction for carrying out the objects above indicated, are necessarily susceptible to a wide range of structural modification without departing from the scope of the invention, but certain preferred embodiments thereof are shown in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a plural lamp fixture embodying the present invention, and showing one method of detachably securing the receptacle units in position on the cluster bracket. Fig. 2 is a bottom plan view partly broken away and the cluster cover removed to illustrate the form of the inner and outer wire terminal elements constituting a part of the supporting bracket for the units, as well as subserving the functions of terminals for the feeding wires. Fig. 3 is a bottom plan view of the receptacle unit shown in Fig. 1 of the drawings. Fig. 4 is a sectional view of a receptacle unit showing the various parts thereof separated, and illustrating their relative relation to each other. Fig. 5 is a detail in perspective of a form of fastening stud constituting an extension from the central plug contact or screw, said stud being shown in Figs. 1, 3, and 4 of the drawings. Fig. 6 is a sectional view of a portion of the cluster illustrating a modification in the fastening means for securing the unit to the cluster bracket. Fig. 7 is a similar view on the line of section 7—7 of Fig. 6. Fig. 8 is a detail sectional view on the line 8—8 of Fig. 7.

Like references designate corresponding parts in the several figures of the drawings.

In carrying out the present invention the fixture is constructed along lines to divide the same into two permanent parts, one being the main cluster base part, and the other the individual receptacle-units detachably connected to and supported by said base part

and also in suitable electrical connection therewith to provide for the proper supply of current to the wires carried by the electrical plug, whether such plug be a part of an incandescent electric lamp or is an ordinary extension circuit plug. According to this mechanical division of the invention, the main cluster base part is intended to simply carry the wire terminal elements for the fixture or cluster, while the individual receptacle units carry the remaining necessary mechanical and electrical elements to complete the device.

Referring particularly to the main cluster or base part of the fixture, the same may be characterized as a cluster bracket inasmuch as the same provides a supporting bracket for the receptacle units. The said bracket is designated in its entirety by the letter B and essentially consists of an insulating base piece 1 and a pair of concentrically arranged inner and outer wire terminal plates 2 and 3 respectively. By reason of the fact that these wire terminal plates 2 and 3 provide a common wire terminal connection for all of the receptacle units of the cluster, the same may be properly termed universal terminal plates, and it has been found preferable in carrying out the invention to shape these plates in the form of semi-spherical shells provided at their edges with laterally deflected securing flanges 4 seated against one side of the base piece 1, and held thereto by securing screws or equivalent fastenings 5 which may be also utilized for the connection of the separate cluster feed wires F and F', respectively. However, in connection with this detail, it will be understood that any suitable feed wire connection may be made with the universal terminal plates 2 and 3 to include said plates respectively on opposite sides or legs of an electrical circuit.

The universal terminal plates 2 and 3 are of different sizes, the smaller one 2 being arranged inside of the larger and outer plate 3 in a spaced relation thereto, and both of the said plates are preferably truncated to provide in the tops thereof the openings 6 aligned with the corresponding opening 7 in the base piece so that through these aligned openings a fastening bolt or equivalent device can be manipulated for securing the base piece to a suitable point of support. This detail, however, may be utilized or omitted without affecting the essential features of the invention. The universal terminal plates 2 and 3 are provided with a plurality of pairs of aligned openings, 8 and 9 respectively, the openings 8 in the inner plate 2 being threaded and constituting anchoring holes, while the openings 9 in the outer plate 3 act in the capacity of keeper mortises for the individual receptacle units in a manner to be presently explained.

Each pair of the openings 8 and 9 is arranged on a line radial to the centers of the

terminal plates 2 and 3 so as to correspondingly position the receptacle units associated therewith.

Referring to each of the units in detail, the same essentially consists of an insulating base section 10, the central plug contact 11, the side plug contact 12, a receptacle cover 13, a fastening stud 14, and a pair of contact conductors 15, as plainly shown in detail in Fig. 4 of the drawings. The base section 10 consists of a suitable block of insulating material and is provided at what may be termed its inner side with a projecting holding tenon 16 provided therein with a squared seat or socket 17 receiving the angular body portion 18 of the fastening stud 14. This fastening stud is provided with a threaded projecting stem and its body portion is formed therein with a threaded socket 19 receiving the inner threaded section 20 of the central plug contact 11 which is in the form of a screw fastened through the central screw hole in the base section 10 and provided at its outer end with a contact head 22 lying directly against the face of the base opposite the holding tenon 16. Hence, the contact head 22 is disposed directly within the plug receiving opening provided for by the receptacle cover 13 and the side plug contact element 12. This side plug contact element 12 usually consists of the ordinary metal threaded shell to receive the threaded cap of the electrical plug, and in carrying out the present invention, it is provided with an open base portion having supporting flanges 23 located upon opposite sides of the contact 22 and resting directly upon the outer face of the base 10. The said supporting flanges 23 also carry the nuts 24 receiving the outer extremities of the contact conductor screws 15 passing through side screw holes 26 in the base 10 and having their heads 27 disposed against or arranged exposed on the inner side of the base 10 so that the same may be drawn into metallic and electrical contact with the outer terminal plate 3.

The cover 13 for the receptacle unit is preferably fitted with the usual insulating lining 28 and not only extends over the side plug contact or shell 12 but also has the usual apron portion 29 extending over the base 10 and held thereto by a suitable fastening element such as the spring locking tongue 30 shown in Figs. 1 and 4 of the drawings.

When the parts of the electrical unit are connected together, as shown in Fig. 1 of the drawings, it is simply necessary to insert the same through a receiving opening 31 in a semi-spherical cover 32 and to pass the threaded stem of the fastening stud 14 into the threaded anchoring hole 8, and by screwing up the unit, the tenon 16 is carried through the keeper mortise 9 and the heads 27 of the conductor screws 15 drawn into contact with the outer terminal plate 3. A

practical modification which may be resorted to in the construction of the individual separate units is shown in Figs. 6, 7 and 8 of the drawings and consists in omitting the separate fastening stud 14 and having a threaded fastening stud 18^a which is an integral extension of the central plug contact screw 11. Also, to equip the stem portion of said screw with a retaining collar 33 to prevent its complete withdrawal from the base 10 and said retaining collar 33 operating in the seat or socket 17 of the holding tenon 16^a. In this form of the invention the holding tenon 16^a is externally angular so as to interlock in a correspondingly shaped hole or mortise 9^a in the terminal plate 3. With this construction it is necessary to use a screw driver within the plug receiving opening of the receptacle to provide for screwing up and detaching the units.

From the foregoing it is thought that the construction, application and many advantages of the herein described improvements are apparent to those familiar with the art without further description.

I claim:

1. In a plural lamp fixture, a member carrying a pair of inner and outer concentrically arranged wire terminal elements, and a self-contained receptacle unit carrying both plug contacts and having a fastening and conducting engagement with the inner wire terminal element and an interlocking and conducting engagement with the outer wire terminal element.

2. In a plural lamp fixture, a cluster bracket having a pair of concentrically arranged wire terminal shells provided with a plurality of pairs of openings therein, and a receptacle unit having at one side a projecting holding tenon engaged within the opening in one of the wire terminal shells, two plug contacts carried by the receptacle unit one of

said plug contact elements having a fastening stud member detachably engaging the opening in the other of said terminal shells.

3. In a plural lamp fixture, a cluster bracket having a base piece, and a pair of concentric semi-spherical wire terminal shells carried by said base piece, and a receptacle unit comprising a base section, a side plug contact element mounted on said base section and having conductors exposed upon the opposite side of the base section, and a central plug contact screw mounted in the base section and having an inner fastening stud element engaging the inner wire terminal shell and arranged to draw the said conductors into contact with the other shell.

4. In a plural lamp fixture, a cluster bracket having a pair of concentrically arranged wire terminal shells provided with openings therein, and a receptacle unit comprising an insulating base section having at one side a recessed projecting holding tenon for engagement in the opening of the outer wire terminal shell, a side plug contact element arranged upon one side of the base section, headed conductor screws securing said side plug contact element and exposed at the opposite side of the base section for contact with the outer wire terminal shell, and a central plug contact screw exposed within the plug receiving opening of the receptacle and carrying at its inner end a fastening stud seated within the recess of the said holding tenon and arranged to have threaded engagement with the opening in the inner wire terminal shell.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

FRANK J. RUSSELL.

Witnesses:

M. LILIAN ERB,
PHEBE A. RUSSELL.