May 27, 1924. 1,495,447

E. O. SCHWEITZER

ELECTRICAL FIXTURE

Filed May 5, 1919 3 Sheets--Sheet 1

Fig. 4

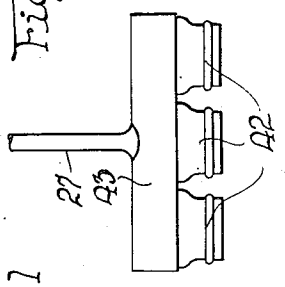
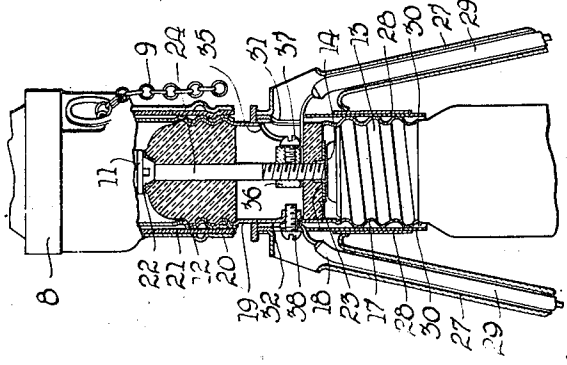


Fig. 1

Fig. 2



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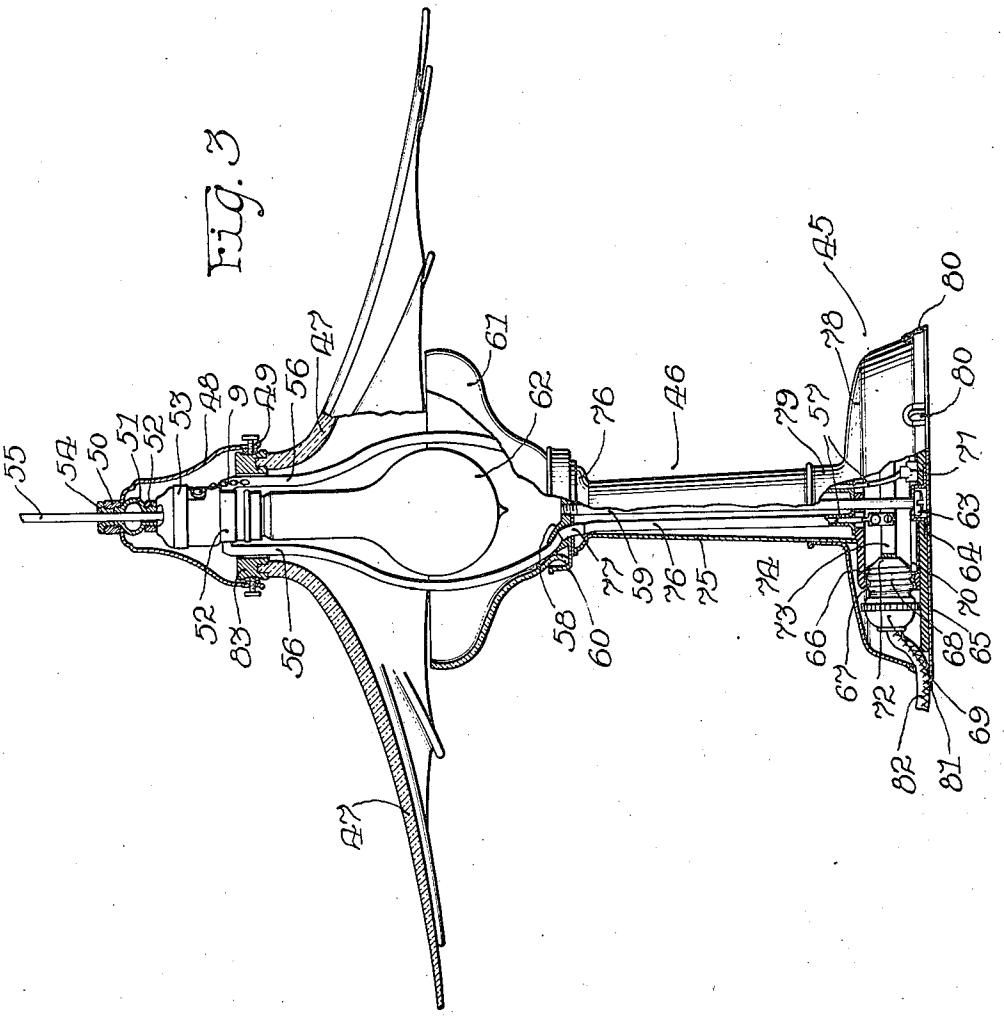
May 27, 1924. 1,495,447

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ELECTRICAL FIXTURE

Filed May 5, 1919 3 Sheets-Sheet 2

Fig. 3



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May 27, 1924. 1,495,447

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ELECTRICAL FIXTURE

Filed May 5, 1919 3 Sheets-Sheet 3

Fig. 5

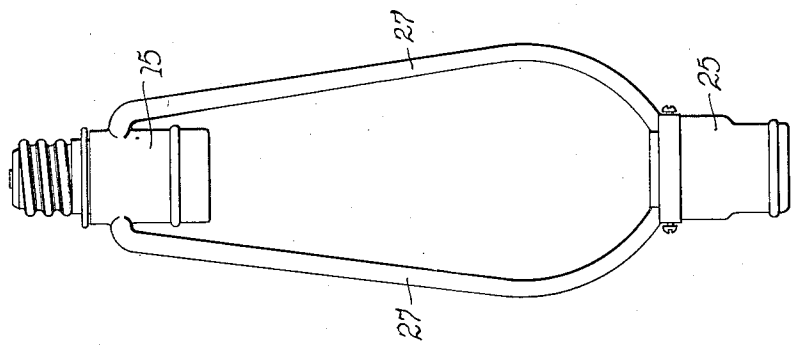


Fig. 7

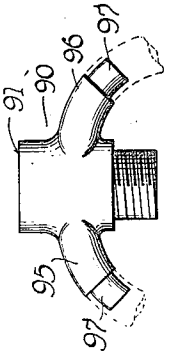


Fig. 8

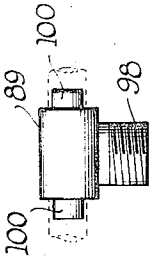
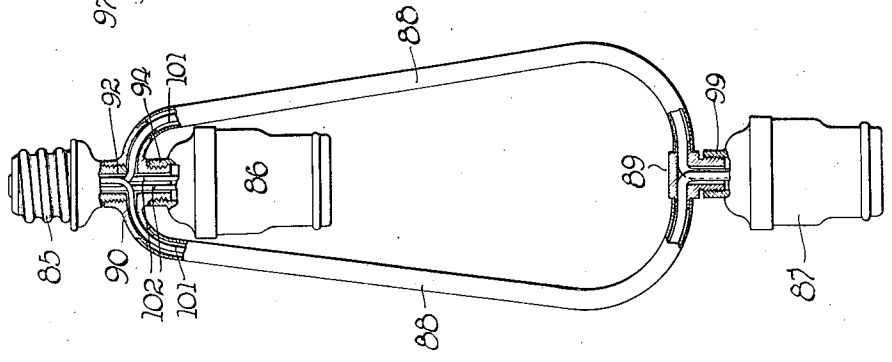


Fig. 6



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UNITED STATES PATENT OFFICE.

EDMUND O. SCHWEITZER, OF CHICAGO, ILLINOIS.

ELECTRICAL FIXTURE.

Application filed May 5, 1919. Serial No. 294,721.

To all whom it may concern:

Be it known that I, EDMUND O. SCHWEITZER, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Electrical Fixtures, 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 electrical fixtures.

It is often desirable to connect a number of electrical devices to a single service outlet. For instance, it is often desirable to operate both a lamp and a heater or a lamp and a sewing machine motor, or such units, in a room where only a single available outlet is provided. Heretofore it has been customary to provide a multiple connecting member in the form of a plug with a plurality of sockets mounted on the plug. Both the plug members and the socket members are generally provided with the standard "Edison" type of connection. While this type of connector has met with considerable success, it is not of general application and is unsuited for use in lighting fixtures of the type which are now in vogue, particularly where the artistic or esthetic side is predominant.

The aim of my present invention is to provide an improved form of multiple connector which is particularly adapted to be embodied in lighting fixtures and the like. This connector comprises a pair of sockets connected together mechanically by hollow rods or tubes thru which are threaded the insulated conductors for connecting the contacts of the socket. It is possible to work this construction into a great variety of pleasing and useful forms. It is also possible to construct an embodiment of the invention largely from standard parts, although any design or style of construction may be employed. The sockets are made up largely from standard parts with special shells joined to the rods or tubes for holding the two sockets together. It is to be understood, however, that any form of socket or connecting part may be employed which is found desirable.

In order to acquaint those skilled in the art with a particular manner of embodying my invention I shall now describe, in connection with the accompanying drawings, one form of the invention and the manner of use of the same. In the accompanying drawings,

Figure 1 is a side elevation with parts in section showing a pendant fixture embodying my invention;

Figure 2 is an enlarged longitudinal sectional view thru a portion of the same;

Figure 3 is a side elevation partly in section showing a table lamp embodying my invention;

Figure 4 is a fragmentary elevational view showing a plurality of sockets mounted on the lower ends of the supporting rods;

Figure 5 is an elevational view of the attachment shown in Figures 1 and 2;

Figure 6 is a similar view of a modified form of the same; and

Figures 7 and 8 are elevational views of details.

The fixture shown in Figures 1 and 2 comprises the shade 1, which may be of any suitable or preferred construction, and which in the present instance is of leaded glass type, is provided at its upper edge with a crown or annular binding 2. The shade is suspended from a suitable overhead support by means of the chain 3, which chain is connected thru an eye 4 with a cap or cover 5, this cap being connected to the shade 1 by means of the thumb screw 6. The inner ends of the thumb screws 6 engage the crown or band 2 to clamp the same firmly to the cap or cover 5. The ring 4 has a threaded stem which is hollow and which threads into the threaded neck 7 of the snap switch socket 8. The cap or cover 5 is thus clamped between the ring 4 and the neck 7 of the switch socket. The switch socket 8 is provided with a pendant flexible operating member 9 in the form of a chain or other suitable pull member.

It is to be understood that the parts above described may be of standard or previously known construction and design and do not form an essential part of my invention, but form a setting in which my invention is particularly useful and which in connection with my novel construction forms a new combination.

The switch socket 8 has suitable contacts which may be of standard construction which are connected to the conductors 10 thru the medium of the switch above referred to in any preferred manner. The contacts of the switch socket 8 are as shown in

Figure 2 and comprise the central contact member 11 and the shell or threaded contact member 12.

The lamp bulb 13 has the usual contact comprising the threaded sleeve 13 and the central contact 14. The contacts of the lamp 13 may be brought into connection with the contacts 11 and 12 in the usual manner of mounting the lamp in the fixture previously described.

When it is desired to make connections for operating another lamp or some other appliance such as a heating appliance, a motor, or the like, the lamp 13 is removed and the multiple connector of my invention is connected to the socket 8 as shown in Figures 1 and 2. This multiple connector provides a socket 15 having the contacts 17 and 18 co-operating with the lamp contacts 13 and 14. The contact 17 is in the form of a sleeve which is internally threaded to receive the threaded contacts 13. The contact 18 is in the form of a central contact adapted to be engaged by the central contact 14 on the lamp bulb.

The sleeve contact 17 is part of a sheet metal cylinder 19 the upper end of which is threaded as shown in Figure 2 to form the outer contact member of a suitable plug portion, which plug portion is adapted to make contact with the socket member 8. The plug portion comprises a central body of insulation 21 bearing a central contact member 22 at its upper end adapted to engage the central contact 11 of the socket 8.

The central contact 18 of the socket member 15 is mounted upon an insulating member 23 which may be separate from the insulating member 21 or may form a part of the same as desired. The central contact members 22 and 18 are connected together by a bolt 24 which passes thru the insulating members 21 and 23. This bolt is threaded at its lower end into the insulating member 18. It will be understood that the ends of the bolts themselves may serve as a central contact if so desired. The bolt may also be reversed without departing from the invention.

I provide a socket member 25 which is connected in multiple with the socket member 15 so that connection may be made as by means of a suitable plug 26 to another device such as a lamp, heater, motor, or the like. The socket 25 is mechanically connected to the socket 15 by means of two hollow rods or tubes 27, these tubes lying on opposite sides of the lamp bulb 13 and being of such a configuration that the lamp bulb may be inserted or withdrawn from the socket member 15. The socket member 15 has a shell or casing member 28 to which the upper ends of the hollow rods or tubes 27 are connected. The hollow rods or tubes contain the insulated conductors 29 which connect the contacts of the socket 15 in multiple with the contacts of the sockets 25. A sleeve of insulation 30 lies between the casing 28 and the threaded contact member 17 of the socket 15. This sleeve of insulation is cut away at the points 31 and 32.

These openings 31 and 32 in the insulating member 30 are formed in line with openings 33 and 34 formed in the upper ends of the hollow rods or tubes 27. The opening 31 is also formed in line with an opening 35 in the side walls of the tubular sheet metal member 19.

A threaded metal block 36 is secured on the central bolt 24 and the right hand wire 29 passing thru the openings 31, 33 and 35 is secured to the block 36 by means of the fastening screw 37.

The left hand wire passing thru the opening 32 is secured to the metal cylinder 19 by means of a similar fastening screw 38, which in this case is threaded into a flange which is formed about the opening in this metal sleeve.

The lower ends of the hollow rods 27 are connected to the shell or casing of the socket 25 as shown at 40 in Figure 1 and the conductors 29 pass thru suitable openings in this casing to the contacts of the socket 25 which contacts may be formed in any usual or preferred manner. The plug 26 may be screwed into or out of the socket 25 to make or break connection as desired for other light appliances.

In the form shown in Figures 1 and 2 the multiple connector of my invention forms a separable article of manufacture applicable to any form of lighting fixture of the general character shown in Figure 1 and it has this practical advantage that the lamp bulb is moved only a slight distance from its original position and remains substantially where it would be placed without the interposition of this connecting member.

The connector does not disfigure the lighting fixture and provides the multiple socket in the most convenient position for making contact for the additional appliance.

It is to be understood that instead of employing a single socket member 25, a plurality of the same may be provided as shown in Figure 4. In this case the sockets 42 are mounted upon a common base member 43, which is connected to the lower ends of the hollow rods 27.

It is also to be understood that the number of rods connecting the upper socket and the lower socket or sockets, may be increased or decreased as desired. I have found that two such rods are preferable as they form a symmetrical unit and independent conductors may be lead thru these rods, but it is to be understood that this is not essential, but is merely the preferred construction.

In Figure 3 I have shown a table lamp em-

bodying my invention. This table lamp comprises the base portion 45, the post or standard portion 46, and the shade portion 47, which is mounted in a cap 48 by means of the thumb screws 49. The top of the cap 48 is perforated and the edges of the perforation are clamped between a collar member 50 and a shouldered connecting member 51 which connecting member threads into the neck 52 of the upper switch socket member 53. The collar 50 is preferably provided with a bushing 54 and the conductors 55 enter the switch sockets 53 thru the bushing 54, collar 50, conductor 51, and are then connected in any preferred manner to the terminals of the switch sockets 53. The switch socket is mounted upon and supported by the hollow rods 56, these hollow rods containing conductors 57 for connecting the contacts of the switch socket 53 with the contacts of the socket in the base, which will be described later. At their lower ends the hollow rods 56 are secured in a block or base member 58, this base member being connected by the rod or bolt 59 to the base of the lamp, as will be described later. The bottom of the block or base member 58 rests upon a flanged plate or cup 60, which flanged plate or cup supports the diffusing globe 61, which diffusing globe is designed to protect the eye of an observer from the direct rays of the lamp 62. It will be observed that the fixtures herein described are adapted for high power lamps, but it is to be understood that lamps of any character may be employed. The rod or bolt 59 extends up from the base member 45. The head 63 is seated in a recessed washer 64, the edges of which engage the base plate 65. Upon the base plate 65 there is mounted a hollow block of insulation 66 which is formed in the shape of an inverted cup. This inverted cup shaped member of insulation 66 has a plurality of openings therethru distributed around its periphery and in these openings are provided metal ferrules for forming electrical contact with the external threaded contacts 68 of suitable plug members 69. The ferrules 67 are internally threaded to co-operate with the threads of the shells 68 and these ferrules are connected together in multiple by means of the connecting wire 70 which in turn is connected as shown at 71 with one of the wires 57 which lead up to the socket member 52.

The central contacts 72 of the plug member 69 are adapted to engage a central ring or strap 73 which forms a common contact for all of the sockets in the base member 45. This ring or strap 73 is connected to the other conducting wire 57 as shown at 74.

The inverted cup shaped insulating member 66 is clamped between the base plate 65 and the post or column 46 which is formed of thin metal in the form of a tapered sleeve 75, having a suitable bead or ornamentation 76 at its upper end where it engages the bottom of the flanged plate 60. A wooden post or column might be employed if desired, in fact any preferred length or size of post or column could be used.

The hollow rods 56 are fastened at their lower ends into the block member 58 to form the mechanical connections between the post or column section 46 and the socket 52 with its connected shade portion 47. The wires 57 might be lead in a twisted pair or in any other form from the lower end of the hollow rods 56 to the connecting portions 71 and 74, but I preferably provide extensions of the hollow rods 56 which extensions 76 are joined at their upper ends by means of short connecting sleeves 77 to the lower ends of the hollow rods 56. The lower ends of the extensions 76 rest upon the top of the hollow block 66 and may be secured thereto in any convenient or preferred manner.

A finishing cover plate 78 is provided for the base section 45, this cover plate having a collar or hub 79 surrounding the bottom of the column or post 75 and resting over the edges of the base plate 65. This ornamental cover plate 78 may be lifted to expose the various multiple sockets to permit insertion and withdrawal of plug members 69. The ornamental cover plate 78 is provided with a series of openings 80 which may register with suitable slots 81 cut in the edges of the base plate member 65 to permit the conducting cord of the plug member 69 to pass outwardly. The cover plate is preferably guided on the post 75 so that after it is lifted it may be dropped back into place properly.

It is to be understood that the multiple contacts formed in the base section 45 may be formed otherwise in detail, although I prefer the particular construction shown and described.

The shade section 47 may be of any ornamental or desired type. The shade which I have shown is provided at its upper end with a ring or ferrule member 83 to which the upper portion of the shade is cemented or otherwise secured, and this ring or crown member 83 is engaged and held by the thumb screws 49.

It will be readily apparent that if so desired the shade 61 may be applied to the device as illustrated in Figure 1, in other words, the shade 61 may be used in conjunction with the shade 1, illustrated in Figure 1, to obtain the indirect lighting effect resulting in the structure shown in Figure 3. It will also be obvious that the upper shade may be omitted and the lower shade only employed.

In Figure 6 is shown a modified form of the attachment constructed in accordance with my invention. In this construction I employ a standard plug member 85 and a pair of standard socket members 86 and 87,

these parts being connected together by the hollow rods 88 and the T fitting 89 and the cross fitting 90.

The cross fitting 90 comprises a central body member 90 which has a screw socket 91 at its upper end adapted to be connected to the nipple 92, which nipple is connected to the plug member 85. Obviously the nipple might be formed as an integral part of the upper end of the main body member without departing from the invention. At its lower end the body member of the cross 90 has an extending integral nipple 93 which is threaded into the upper ring 94 of the standard socket member 86. The socket members 86 and 87 may be provided with the usual T switches if so desired, as this is a matter of choice. The contacts of the socket members 86 and 87 are individually connected to the plug member 85 so that either appliance in connection with the socket 86 or 87 may be individually disconnected.

The cross member 90 further has the arms 95 and 96 and these arms are provided with integral nipples 97 to make connection with the rods 88. The hollow rods are fastened on the outside of the nipples 97, although it is obvious that the arms 96 may be internally recessed to receive the ends of the hollow rods 88. I consider either scheme for connecting these parts together to be equally feasible and useful in this connection.

The T member 89 has a threaded nipple 98 which extends downwardly and is threaded into the ring 99 of the lower socket member 87. The sides of the T are provided with the nipples 100 for making connection with the hollow rods 88. As above explained in connection with the T member 90, the hollow rods may be secured internally in the sides of the T member 89 instead of being fastened over the nipples 100.

It will be apparent from the above that the construction shown in Figure 6 may be made up very simply and cheaply, as the standard plugs and sockets may be secured in the open market.

The conductors 101 which run to the lower socket member 87 pass thru the hollow rods 88 and may be connected either to the plug 85 directly, or to the contacts of the upper socket 86. In this instance I have shown the wires 101 running up to the plug member 85. The contacts of the socket member 86 are in the present case connected to a contact of the plug member 85 by means of the conductors 102.

Preferably the hollow rods 29 and 56 are made of a rather small diameter so that the lighting elements will cause light to shine around the same from each side whereby no distinct or sharp shadow will be cast and no appreciable interference with the disbursement of light will be caused.

I believe that I am the first to provide sockets of this character in multiple, which sockets lie one above the other and are connected by a rod or rods which pass out around the lamp element which is mounted in the upper socket member.

I do not intend to be limited to the precise details shown and described.

I claim:

1. In combination, a vertically disposed pair of socket members, having contacts adapted to be interchangeably connected to standard or usual connecting plugs, a hollow rod suspending one of said socket members upon and below the other, said rod being connected at the side of one socket member, and a conductor passing thru said rod and connecting the contacts of said socket members.

2. In combination, a pair of socket members arranged in substantially axial alignment, said socket members having contacts adapted to be interchangeably connected to standard or usual connecting plugs, casings for said socket members, a pair of hollow rods connected between the casings of said socket members, said rods being connected at the sides of the casing of one of said socket members, and conductors passing thru said rods and connecting the contacts of said socket members in multiple.

3. A fixture comprising a vertical socket, a lamp in said socket, a second socket lying directly below said lamp and being connected in parallel with said first socket, a shade surrounding said lamp and a hollow rod mechanically connecting the said sockets, said rod passing around the lamp between the lamp and the shade to a point below the lamp, said rod containing conductors for connecting said sockets in parallel.

4. A fixture comprising a vertical socket, said socket facing downwardly, a lamp disposed vertically in said socket, said lamp depending from the socket, a second socket disposed vertically and facing downwardly lying directly below said lamp, and being connected in parallel with said first socket, a shade surrounding said lamp and a hollow rod mechanically connecting said socket, said rod passing around the lamp between the lamp and shade to said lower socket and containing a conductor for connecting said sockets in parallel.

5. A self-contained and wired attachment comprising a plug member for making electrical and mechanical connections to the usual outlet socket of an electrical distributing circuit, said plug member facing upwardly, a lower socket facing downwardly, a rod connecting said plug member and said socket member mechanically substantially in alignment and containing a conductor for connecting said members electrically in parallel, and an intermediate socket con-

nected in parallel electrically with one of said members and mounted mechanically upon one of said members for supporting a lamp vertically in alignment with said plug and socket, said rod being adapted to lie near the lamp so that it may pass between the lamp and a surrounding shade.

6. A wired and self-supporting attachment for electric circuits comprising a socket member at its upper end for supporting a lamp in vertical position, a connection for attaching said socket to the usual outlet of a distributing system, an outlet socket at the lower end for attachment of an appliance circuit, and a hollow rod forming a mechanical support between said sockets, said rod being bent out around the lamp for the upper socket, and containing a conductor to connect said sockets in parallel, and a shade supported by said attachment, said shade surrounding the lamp and rod.

In witness whereof, I hereunto subscribe my name this 2nd day of May, 1919.

EDMUND O. SCHWEITZER.