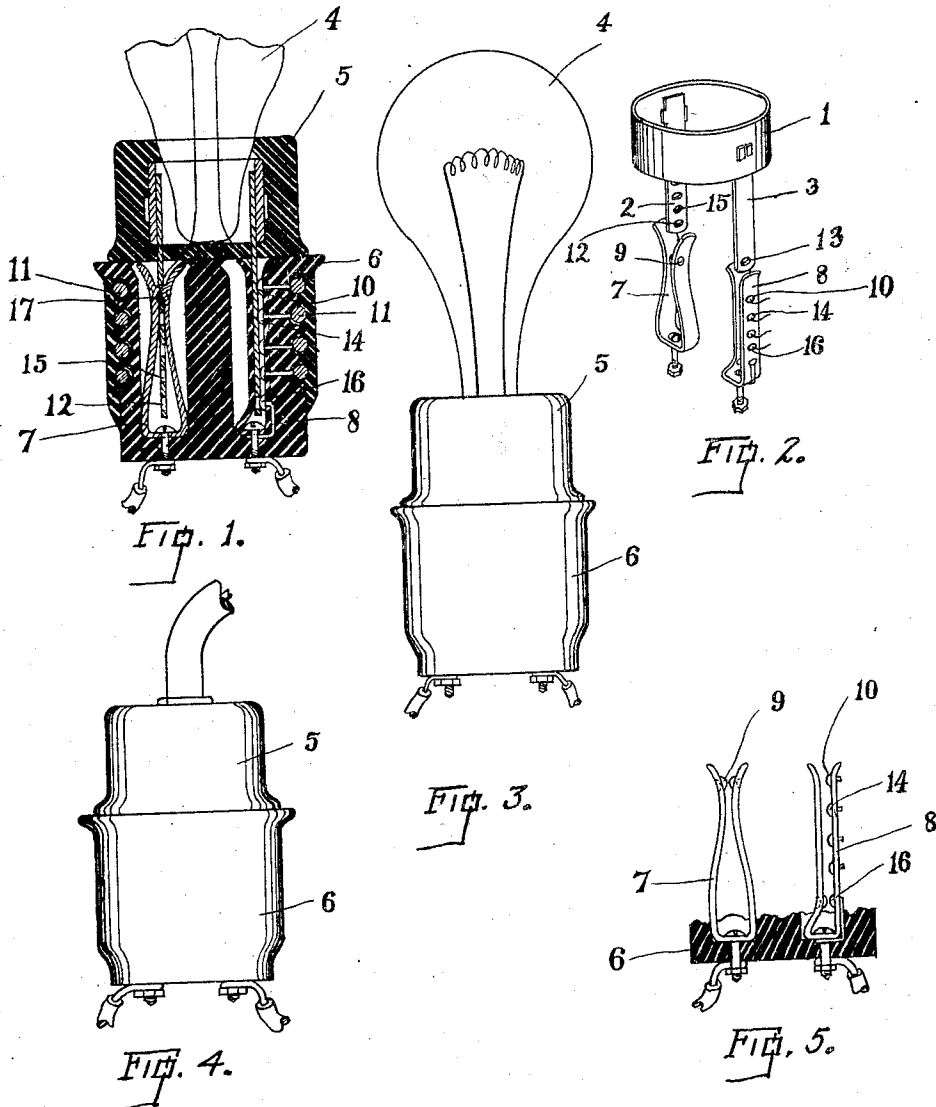


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RHEOSTAT SOCKET AND PLUG
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RHEOSTAT SOCKET AND PLUG.

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My invention relates to electric light bulbs and socket devices and power plugs of a character adapted to provide a means of quickly mounting the bulb or plug and conveniently varying the intensity of light or strength of power controllable from a light or power unit.

An object of my invention is to provide a light socket and plug or bulb mountings whereby an electric light unit or power plug may be easily, quickly and conveniently mounted into a position for normal use and with it a rheostat member providing a high resistance within the socket for regulating the intensity or strength of power.

A further object of my invention is to provide an incandescent electric lamp socket or power socket and plug provided with conveniences whereby an electric light bulb or power plug may be instantly connected with the socket.

A further object of this invention is to provide along with an electric light and power unit connection a high resistance unit or rheostat connection whereby the intensity of light or strength of power from the unit may be optionally varied with convenience, merely by pushing or pulling on the plug or bulb adapted to fit slidably into the socket receiving the same.

I attain the objects of my invention with the device described in detail in the annexed specification, recited in the claims and illustrated in the accompanying drawings in the study of which the above and other objects may become apparent with the descriptions which follow in which like reference numerals denote like parts in the drawings.

Referring to the figures:

Figure 1 is a longitudinal sectional view of my plug and socket showing in some detail the preferred method of connecting the bulb or a power plug with the socket.

Figure 2 is a detail of the prongs and prong receiving members of my plug and socket.

Figure 3 is a side view of a completely assembled bulb and socket showing how they are connected and how they appear as a finished product.

Figure 4 is the complete plug attachment for power connection with the socket.

Figure 5 is a detail of a cut-a-way section of the socket of my invention exposing to view the prong receiving members.

Referring in detail to the drawing, my in-

vention includes a mounting for electric light bulbs known as a plug or merely a mounting for plug connections where power and not the light is connected. This plug mounting consists of a ring —1— for the substantial support of a pair of prongs —2— and —3— respectively which are mounted on the ring. Ring —1— and the upper end of prongs —2— and —3— are adapted to be suitably protected by being molded and encompassed by insulation material suitable for wear and protection of the electrical contact members including prongs —2— and —3— at their upper ends.

It will be seen that with such a mounting it will be convenient and practical to have an electric light bulb —4— made to fit substantially within the plug as a suitable mounting for the bulb and especially with the substantial protection in insulation base —5—.

It will be noted that prong —2— of the bulb mounting or plug is provided along its length with a plurality of spaced apertures and that prong —3— is provided with a single aperture near the end thereof. These prong members are adapted to normally fit into a socket —6— and be engaged therein by prong receiving members —7— and —8— respectively.

In observing carefully the details of construction of prong receiving members —7— and —8— respectively it will be seen that prong receiving member —7— is formed into a spring clip provided with a pair of integral protruding lugs —9— adapted to optionally engage the prong member of the plug provided with a plurality of apertures and referring to prong receiving member —8— it will be noted that this member is made of insulation material and provided with a plurality of protruding lugs —10— any one of which is adapted to optionally engage the prong of the plug which is provided with a single aperture.

By this arrangement it will be seen that when the prongs are normally mounted in a bulb mounting or power plug that it will be a convenient matter to attach an incandescent bulb or power plug instantly into operative position merely by inserting the prongs into the prong receiving members —7— and —8—.

It will be seen however, that further conveniences are provided by the device of my invention wherein a high resistance rheostat

unit —11— consisting of suitable wire windings about the socket member —6— which is made of insulation of some suitable material. This resistance unit is tapped in several
5 places each of which is connected with a different protruding lug in the group on prong receiving member —8— and designated by numeral —10—.

A careful study of Figure 2 will show
10 that when attaching the plug or bulb containing the prongs within the socket member —6— that aperture —12— in prong —2— is adapted to be engaged by lugs —9— of spring clip —7— at the same time that
15 aperture —13— may be engaged by metallic lug —10— of resilient fiber clip —8—.

As the plug is first attached it may be held into place suitably by lugs —9— and —10— and in this position is adapted to provide
20 the illumination of the least intensity but as the plug is inserted further into the socket, aperture —13— is engaged by lug —14— while aperture —15— of prong —2— is at the same time engaged by lugs —9— of
25 spring clip —7— in which position the light becomes of a predetermined greater intensity and so on until at the greatest intensity the plug prongs would be completely inserted so that aperture —13— would be engaged by
30 lug —16— while aperture —17— would be engaged by lugs —9—.

It will be seen that in manufacturing the plug and socket of my invention for an incandescent bulb and power connections that
35 from the standpoint of economy in manufacture the cost of production should not be excessive while at the same time a convenient arrangement is provided not only for the quick attachment of electric light bulbs or
40 power plugs by merely inserting them within the socket —6— but in the meantime the intensity of illumination may be varied optionally in a very convenient manner which includes merely the slidable adjustment of
45 the plug prongs within the socket.

To those skilled in the art to which my device pertains, it will be evident that my socket may be mounted conveniently into fixtures or into wall sockets for light or power
50 attachment and that the plug containing the light bulb or power connection will be easily attached in any convenient position of attachment and still be substantially retained within the socket.

55 It will be evident that slight changes in the structure of my device may be made and still stay within the spirit and scope of my invention but the preferred details have been herein above described and illustrated in the accompanying drawings.

Having thus described the nature of my invention, what I claim as new and useful and desire to secure by Letters Patent is:

65 1. A rheostat socket and plug for electric light and power connection comprising a pair

of suitably insulated prongs for the plug or bulb, each prong provided with one or more apertures for engagement with holding members in a socket and a socket provided with springy receiving members for
70 said prongs of the plug and with spaced protuberances positioned in longitudinal alignment on one of said receiving members, the other of which is provided with a single pair of protuberances for engage-
75 ment with a corresponding prong of the plug, said socket provided with a coil of high resistance wire suitably insulated and tapped at intervals and connected, each tap, respectively with a corresponding lug
80 on said receiving member for said prongs whereby said socket when accommodating said plug may act as a rheostat control for light or power unit.

2. In a rheostat socket and plug for electric light and power connection, having electrodes suitably protected by insulation; the combination with a plug having prongs, one of which is provided with a plurality of longitudinally aligned apertures; of a rheostat
90 socket provided with a pair of spaced springy receiving members for said prongs; one of said receiving members provided with a pair of integral retaining lugs adapted to engage said apertures in said first mentioned prong of the plug; the other of said
95 receiving members made of insulation material and provided with a plurality of longitudinally aligned protuberances or semi-spherical integral lugs adapted to register with and engage said aperture in said corresponding prong of the plug; said socket provided with a coil of high resistance wire
100 tapped at intervals and connected with said semi-spherical lugs of the socket member adapted to accommodate said prong of the plug having a plurality of spaced apertures; said receiving members of the socket each adapted to be connected with a light or
105 power circuit for the supply of electric energy.

3. A rheostat socket and plug for electric light and power connection comprising in cooperative combination a pair of prongs positioned in spaced relation in a light or
115 power plug and insulated for suitable protection therein; one of said prongs provided with a single aperture near the end and the other of said prongs provided with a plurality of longitudinally aligned apertures; said
120 rheostat socket provided with a pair of spaced springy receiving members for said prongs; one of said receiving members provided with a pair of integral retaining lugs to accommodate the latter prong, the other made of insulating material and with a
125 plurality of longitudinally aligned metallic protuberances or semi-spherical integral lugs and adapted to register with the aperture in said corresponding prong of the plug; said
130

socket provided with a coil of high resistance wire tapped and spaced in predetermined intervals and electrically connected with said semi-spherical metallic lugs of the
5 socket member adapted to accommodate the prong of the plug having a single aperture therein; said receiving members of said socket each adapted to be connected with a
10 light or power circuit and said socket suitably mounted in normally used position whereby an electric light bulb provided with
said prongs or power plug may be inserted into said prong receiving members where the light or power may be varied in intensity or strength respectively by optionally adjust- 15
ing slidably said prongs within said prong receiving members by merely pushing or pulling on the bulb or plug.

In witness whereof, I hereunto set my hand this 12th day of April A. D. 1926.

ALEXANDER MacCLURE BOOTH.