

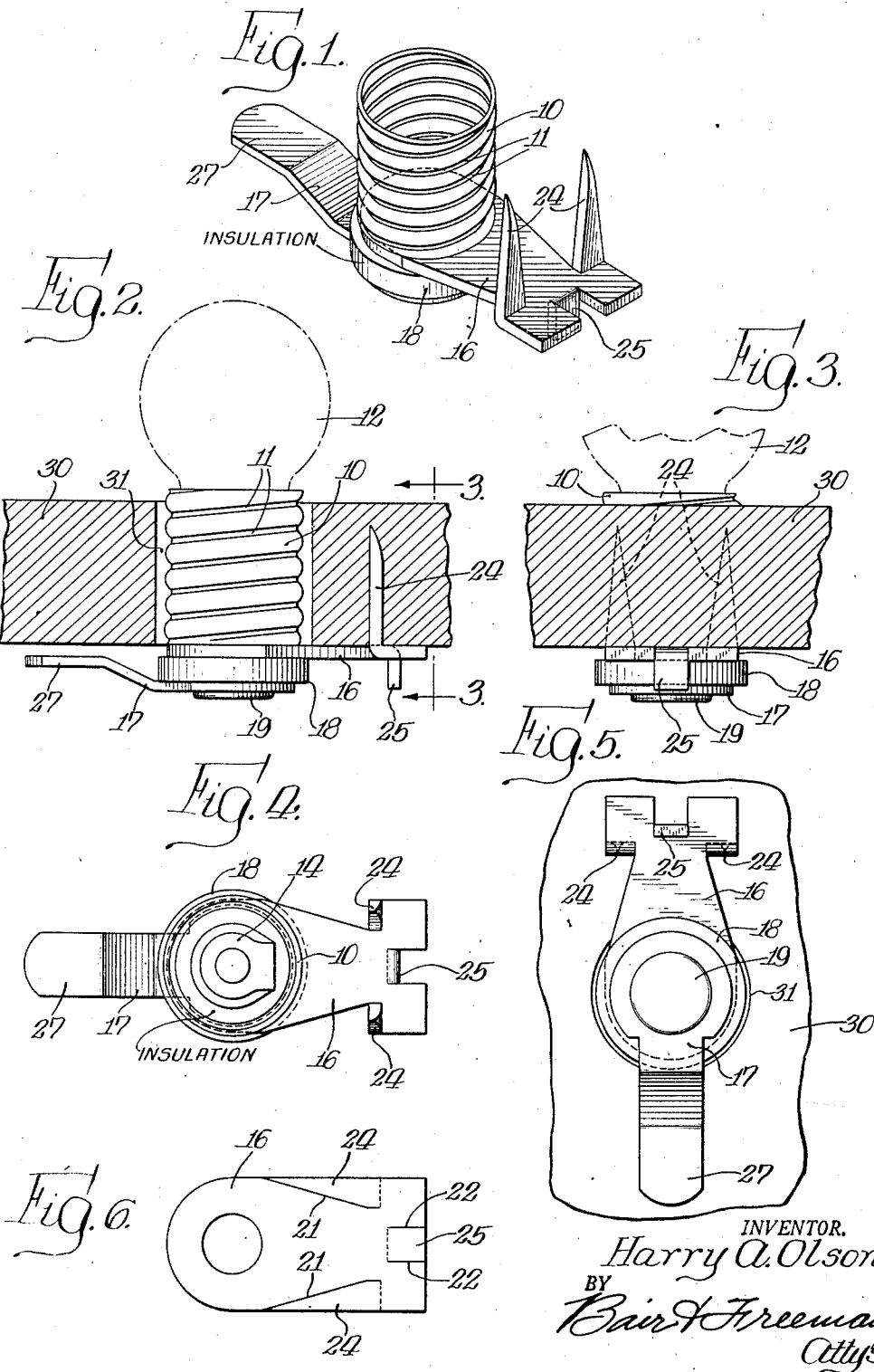
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SOCKET TERMINAL MOUNTING

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SOCKET TERMINAL MOUNTING

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The present invention relates to a lamp socket assembly of the type adapted for use in connection with relatively small size electric lamps, such as used for dial lights and panel lights, as employed, for example, in the radio field. Usually, such socket assemblies are mounted on a panel so that the body of the socket extends through an aperture or notch formed in the panel, and the socket assembly is secured to one surface of the panel.

Lamp socket assemblies of this general type as heretofore manufactured, are formed with a pair of laterally and oppositely extending flat metallic terminal arms associated with the bottom of the socket body, and the arms being spaced apart in axial direction, with respect to the socket body, in insulated relation to each other, and in electrical contact respectively with the body of the socket, and with a contact mounted within the body of the socket, as is well understood in the art. The outer ends of each of the arms is usually provided with one or more openings for receiving fastening elements such as screws, nails or staples for securing the socket assembly to a mounting panel. Due to the spacing of the terminal arms, in axial direction of the socket body, it has been found that in securing both of said arms in position on a panel, the socket body frequently assumes a tilted or non-central position in the aperture in the mounting panel, and which, in connection with certain apparatus, is considered highly objectionable, and sometimes necessitates spending of time in readjustment of the socket body relatively to the panel. Moreover, due to the necessity for firmly anchoring each of the terminal arms of the socket assembly, the matter of soldering of electrical conductor wires to the arms, after the socket is mounted, is frequently rendered somewhat difficult and time consuming. If such wires are connected to the terminal arms, prior to the mounting of the assembly, then there is a possibility of breaking the soldered connection in the process of mounting of the socket assembly on the panel.

One of the objects of the present invention is to provide a novel and improved socket assembly of the character indicated, characterized by the provision of fastening elements or anchorage means formed integrally with one or both of the terminal arms so as to permit quick and easy mounting of the assembly on a panel.

Another object is to provide an improved socket assembly of the character indicated having one or more pointed prongs formed integrally with one of the terminal arms, by virtue of which the socket assembly may be quickly and easily mounted in relatively fixed relation on a panel by the use of a hammer or equivalent tool.

A further object is to provide an improved

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socket assembly of the character indicated which is constructed and arranged so as to permit convenient soldering of conductor wires to the terminal arms of the socket assembly after the latter is mounted in position on the panel.

Still another object is to provide an improved socket assembly of the character indicated which is simple in construction, durable in use, and capable of being economically manufactured.

Other objects and advantages of this invention will be apparent from the following description, taken in connection with the accompanying drawing, in which:

Figure 1 is an enlarged perspective view of the improved socket assembly embodying the present invention;

Figure 2 is a side elevational view of the novel socket assembly shown in mounted relation on a panel;

Figure 3 is an end view of the socket assembly in mounted relation on a panel, and taken substantially as indicated on line 3-3 of Figure 2;

Figures 4 and 5 are top and bottom plan views, respectively, of the socket assembly, corresponding to the illustrations in Figures 2 and 3, respectively; and

Figure 6 is a detail plan view of one of the terminal arms shown in an intermediate stage of formation.

Heretofore, in mounting socket assemblies of the general type embodying the present invention, in some instances, it has been found highly desirable to first drill holes in the panel on which the socket assembly is to be mounted, to facilitate the reception of the fastening elements and to insure against possible injury to the panel and the possibility of insecure anchorage of the fastening elements. This operation, in addition to the time consumed in positioning the socket assemblies of the prior type, and anchoring them in position on a panel by conventional securing means, is time consuming, and relatively costly, especially in the mass production of certain articles, such as radios. The socket assembly embodying the present invention is constructed and arranged with a view to greatly reducing the amount of time necessary for properly mounting a socket assembly on a panel, as well as effecting a saving of time in soldering electrical conductor wires to the terminal arms of the assembly.

The socket assembly embodying the present invention, is, for purposes of clarity, illustrated in the drawings at a scale approximately three times actual size. The socket assembly comprises a conventional metallic tubular body 10 formed with threads 11, pressed therein for the reception of a relatively small size electrical lamp, as indicated in dot and dash outline at 12. Mounted in the bottom of the body, in insulated relation thereto, is a conventional form of contact indi-

cated at 14, which, together with the body, constitutes the electrical contacts for cooperative engagement with usual contacts provided on the terminal end of the electric lamp.

Rigidly attached to the bottom of the body is a pair of axially spaced apart, terminal arms 16 and 17, which extend laterally and in opposite relation to each other. These arms are formed of suitable electrically conductive material and are insulated from each other by an insulating washer 18. The upper arm 16 is disposed in direct electrical contact with the socket body 10, and the bottom arm 17 is in electrical contact with the internal contact member 14, within the socket body by means of a rivet 19 in a manner well understood in the art. The upper terminal arm 16, as may be seen in Figure 6, is of substantial width, and in the production thereof, a cutting operation is performed at opposite marginal edges, as indicated at 21, and the outer end is also cut as indicated at 22. The arm is then subjected to a forming operation and the portions lying outside of the cuts 21, are bent at approximately right angles to the body of the arm to produce a pair of relatively sharp, upwardly extending prongs 24, spaced apart transversely with respect to the general length of the arm, and the portion intermediate the two incisions 22 is formed in a downwardly extending ear 25 to constitute a soldering lug.

The lowermost terminal arm 17 is formed to provide an upwardly offset portion as indicated at 27, at its outer end, as clearly seen in Figure 2 of the drawing, constituting a soldering lug.

The socket assembly embodying the present invention is mounted on a panel such as indicated at 30, having an aperture 31 of a diameter slightly larger than the diameter of the socket body 10, by first inserting the socket body into the aperture, and then by means of a hammer or other suitable tool, striking the terminal arm 16 so as to drive the two prongs 24 into the body of the panel, as clearly seen in Figures 2 and 3 of the drawings, for firmly anchoring the socket assembly in position on the panel. Thus, it is possible to mount the socket assembly on the panel with the terminal arm 16 seated firmly against the adjacent surface of the panel, with the socket body 10 disposed in substantially perpendicular relationship to the panel.

With the socket mounted in position on the panel, as above described, the matter of soldering electrical conductor wires to the depending lug 25 of the terminal arm 16 and the outer end portion 27 of the terminal arm 17 can be quickly, easily and efficiently performed. The formation of the terminal arm 17 with the outer end portion upwardly offset so as to be disposed in close proximity to the adjacent surface of the panel 30, permits disposition of the conductor wires more compactly against the underside of the panel 30.

While I have herein shown and described the present invention as having one or more sharp pointed prongs on one terminal arm, manifestly, if desired, the other terminal arm may also be provided with one or more similar sharp pointed prongs. For general usage, however, it is found that a socket assembly having one or more prongs on one of the terminal arms provides a satisfactory and efficient means of securing the socket assembly in position.

While in the specification and claims certain of the parts have been defined in relationship to each other when viewing the assembly in an upright position, such as shown in Figure 2 of the drawings, it is to be understood such words as employed are not to be interpreted in a strict sense, but as merely defining the relation of the

parts in one position of association of the socket assembly embodying the present invention in association with a panel.

Although I have herein shown and described a preferred embodiment of my invention, manifestly it is capable of modification and rearrangement of parts without departing from the spirit and scope thereof. I do not, therefore, wish to be understood as limiting this invention to the precise form herein disclosed, except as I may be so limited by the appended claims.

I claim as my invention:

1. In a socket assembly of the character described, comprising a tubular lamp socket body, a contact mounted in said body in insulated relation thereto, and a pair of axially spaced apart, laterally extending terminal arms insulated from each other and connected respectively to said body and said contact, at the bottom end of the body, one of said arms having a sharp pointed prong formed integrally therewith and extending upwardly therefrom, and adapted to be projected into a panel of material for supporting said socket assembly on the panel, said one arm having a down turned ear constituting a soldering lug.

2. In a socket assembly of the character described, comprising a tubular lamp socket body, a contact mounted in said body in insulated relation thereto, and a pair of axially spaced apart, laterally extending terminal arms insulated from each other and connected respectively to said body and said contact, at the bottom end of the body, one of said arms having a pair of transversely spaced apart, sharp pointed prongs formed integrally therewith and extending upwardly therefrom, and adapted to be projected into a panel of material for supporting said socket assembly on the panel, said one arm having a down turned ear, formed intermediate said prongs, and constituting a soldering lug.

3. In a socket assembly of the character described, comprising a tubular lamp socket body, a contact mounted in said body in insulated relation thereto, and a pair of axially spaced apart, laterally extending terminal arms insulated from each other and connected respectively to said body and said contact, at the bottom end of the body, one of said arms having a sharp pointed prong formed integrally therewith and extending upwardly therefrom, and adapted to be projected into a panel of material for supporting said socket assembly on the panel, said one arm having a down turned ear constituting a soldering lug, the outer end of the other arm being upwardly offset and constituting a soldering lug adapted to be disposed in close proximity to the panel, when the assembly is mounted thereon.

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