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ORNAMENTAL ILLUMINATING DEVICE

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Fig. 1

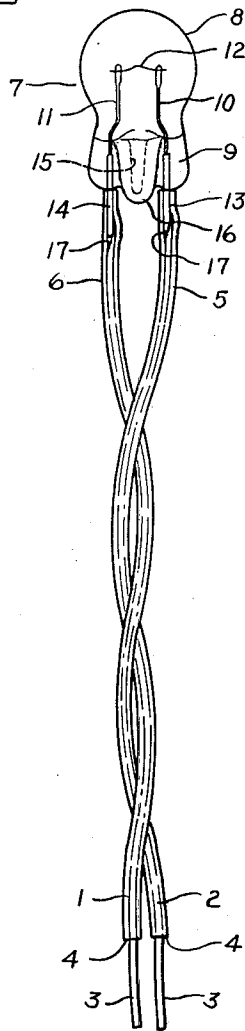
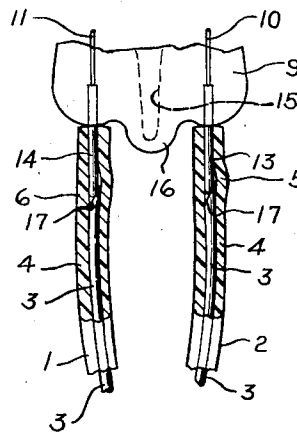


Fig. 2



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ORNAMENTAL ILLUMINATING DEVICE

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1 Claim. (Cl. 339—100)

This invention relates to an ornamental illuminating arrangement of an electric incandescent lamp and current supply conductors therefor.

An object of the invention is to provide a novel arrangement of an electric incandescent lamp and the current supply conductors therefor which affords a simple and inexpensive way of supporting the lamp and connecting it to its current supply conductors while at the same time providing an attractive ornamental illuminating device.

According to one aspect of the invention, an electric incandescent lamp of the type having a pair of rigid terminal pins projecting outwardly from the bulb of the lamp is supported by and electrically connected to the current supply conductors for the lamp by positioning the terminal pins within adjacent ends of, so as to be tightly held between the conductive core wires of and the insulative covering on, the two current supply conductors for the lamp which are suitably interlocked or intertwined to provide a selfsupporting composite conductor assembly. According to a further aspect of the invention, the lamp is mounted on the end of the conductor assembly by inserting and forcing the terminal pins of the lamp into the ends of the respective conductors so as to be tightly wedged between the core wires thereof and the insulative covering thereon.

Further objects and advantages of the invention will appear from the following detailed description of a species thereof and from the accompanying drawings.

In the drawing,

Fig. 1 is an elevation of the ornamental illuminating device comprising my invention.

Fig. 2 is a fragmentary elevation, on an enlarged scale and partly in section, of the illuminating device comprising my invention.

Referring to the drawings, the ornamental illuminating device according to the invention comprises a pair of relatively stiff current conductors 1 and 2 each consisting of a conductive core wire 3, preferably copper, having a skin-tight sheathing or covering of suitable insulating material 4 of relatively low yieldability, such as translucent or clear plastic. The two current conductors 1 and 2 are suitably interlocked with one another, preferably by intertwining or twisting them together as shown in Fig. 1, to provide a self-supporting composite conductor assembly. The two conductors 1 and 2 are spread apart at one end of the conductor assembly to provide short end portions 5, 6 which terminate at their free ends approximately abreast of each other.

Mounted on and supported by the end portions 5, 6 of the two current conductors 1, 2 is a miniature type electric incandescent lamp 7. The lamp 7 is preferably of the general type disclosed and claimed in co-pending application Serial No. 237,804, Greiner, filed 20, 1951, now abandoned, and assigned to the assignee of the present invention, and comprising a small spherically-shaped glass bulb 8 provided with an outward flattened stem press por-

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tion 9 through which are sealed a pair of leading-in conductors 10 and 11. Interiorly of the bulb 8, the leading-in conductors 10 and 11 are connected to the opposite ends of an electric energy translation element or filament 12 such as a coiled wire of tungsten or other highly refractory metal. The leading-in conductors 10 and 11 are provided with rigid outer end or terminal pin portions 13 and 14 which are embedded a short distance within the stem press 9 and project outwardly therefrom to form the terminal contacts for the lamp. As shown, the said terminal pins 13 and 14 project outwardly from the stem press 9 in approximate parallel relation to each other. The bulb 8 is exhausted and, if desired, filled with a suitable gas through an exhaust tubulation (not shown) which is attached to the stem press 9 at a point between the two leading-in conductors 10, 11 and communicates with the interior of the bulb through an exhaust passageway 15 in the stem press and which, after exhaustion and gas filling of the lamp, is tipped-off to leave a short exhaust tip 16 located between the two terminal pins 13, 14.

The lamp 7 is mounted on the ends of and supported in place by the two current supply conductors 1 and 2. The mounting of the lamp on the conductors 1 and 2 may be accomplished by inserting and forcing the two terminal pins 13, 14 of the lamp into the end portions 5 and 6 of the two conductors 1 and 2 so as to become tightly wedged between the conductive core wires 3 and the yieldable insulative covering 4 thereon. To facilitate the insertion of the terminal pins 13, 14 into the end portions 5, 6 of the two conductors 1 and 2 and the wedging of the said pins against the conductive core wires 3 of the conductors 1, 2, the core wires 3 may be beveled or tapered at one side thereof, at a slight angle to their length, for a short distance inwardly from the end extremities of the conductors, as indicated at 17 in Fig. 2. Because of its relatively low yieldability, the insulative sheaths or coverings 4 on the current conductors 1 and 2 thereby grip or hold the terminal pins 13, 14 tightly against the conductive core wires 3 so as to provide a good electrical connection thereto as well as a firm support for the lamp on the end portions 5 and 6 of the conductors 1 and 2. Instead of inserting and forcing the terminal pins 13, 14 of the lamp into the ends of the conductors 1, 2, the lamp may be mounted in place on the ends of the conductors 1, 2 by molding the insulative covering 4 of each conductor around both the core wire 3 and the respective terminal pin 13 or 14, with the terminal pins 13, 14 held in overlapping engagement with the end portions of the core wires 3.

From the above, it will be evident that I have provided an arrangement of an electric incandescent lamp and the current supply conductors therefor which is of highly attractive and ornamental character, of simple construction and easy and inexpensive to manufacture, and which eliminates the need for a socket for the lamp. To enhance the ornamental character of the device, the bulb 8 of the lamp may be colored in any suitable manner, as by applying a suitable colored lacquer coating to the bulb. Also, if desired, a number of the ornamental illuminating devices according to the invention may be electrically connected together in a string and arranged in a suitable pattern to provide a composite ornamental display.

Although a preferred embodiment of my invention has been disclosed, it will be understood that the invention is not to be limited to the specific construction and arrangement of parts shown, but that they may be widely modified within the spirit and scope of my invention as defined by the appended claim.

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What I claim as new and desire to secure by Letters Patent of the United States is:

An ornamental illuminating device comprising a pair of relatively stiff current conductors each consisting of a conductive core wire having a skin-tight sheathing of relatively low yieldability plastic insulating material thereon, said conductors being interlocked with each other to form a self-supporting composite conductor assembly the respective conductors of which terminate approximately abreast of each other at one end of the conductor assembly, the core wire of each of said conductors being tapered at a slight angle, at one side of the wire, for a short distance inwardly from the said end of the conductor assembly, and an incandescent lamp detachably supported directly on the said end of the conductor assembly, said lamp comprising a sealed glass bulb containing a filament and a pair of rigid terminal pins projecting outwardly from the bulb, said terminal pins being inserted and having a force fit between the insulative sheath and the conductive core wire of the respective conductors to electrically connect the lamp to the core wires and support it in place on the said end of the conductor assembly, said terminal pins being withdrawable from between the insulative sheath and core wire of the respective conductors to disconnect the lamp therefrom.

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jecting outwardly from the bulb, said terminal pins being inserted and having a force fit between the insulative sheath and the conductive core wire of the respective conductors to electrically connect the lamp to the core wires and support it in place on the said end of the conductor assembly, said terminal pins being withdrawable from between the insulative sheath and core wire of the respective conductors to disconnect the lamp therefrom.

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