

STRAIN RELIEVING MEANS FOR TERMINALS OF LAMP SOCKETS, &c.
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935,705.

Fig. 1.

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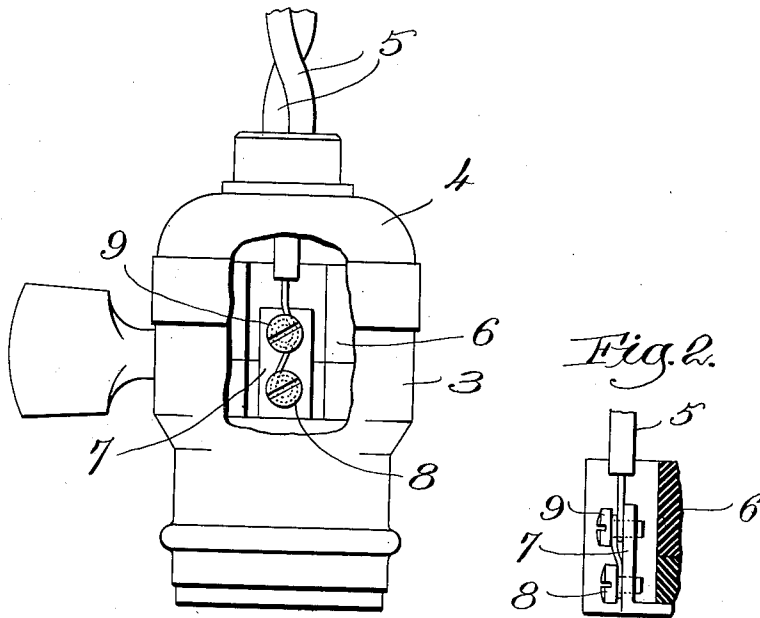


Fig. 2.

Thomas J. Drummond.
Joseph W. Ward.

Frederick W. Swan,
by Henry Gregory attys.

UNITED STATES PATENT OFFICE.

FREDERICK A. SWAN, OF CLIFTONDALE, MASSACHUSETTS.

STRAIN-RELIEVING MEANS FOR TERMINALS OF LAMP-SOCKETS, &c.

935,705.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed April 15, 1908. Serial No. 427,127.

To all whom it may concern:

Be it known that I, FREDERICK A. SWAN, a citizen of the United States, residing at Cliftondale, county of Essex, and State of Massachusetts, have invented an Improvement in Strain-Relieving Means for Terminals of Lamp-Sockets, Rosettes, and other Electrical Fittings, of which the following description, in connection with the accompanying drawing, is a specification, like numerals on the drawing representing like parts.

This invention relates to lamp sockets, rosettes and other electrical fittings, and has for its principal object to provide a novel construction for relieving the terminals of such fittings from any strain to which the conducting wires may be subjected.

It is now the more or less common practice to form a knot in the conducting wires leading to a lamp socket, rosette or other electrical fitting immediately inside of the cap of the fitting for the purpose of taking any strain to which the wires may be subjected and relieving the connection between the wires and the terminals from such strain. This practice of forming a knot in the wires is not favored by fire underwriters, and the present invention has for its object to provide a simple construction for relieving the terminals from strain without the necessity of forming this knot.

My invention comprises the features hereinafter described and pointed out in the claims.

In the drawings wherein I have illustrated one embodiment of my invention, Figure 1 shows both a lamp socket with a portion broken out to show one terminal, and a rosette in section to which the lamp socket is suspended by a cord pendant; Fig. 2 is a section through a portion of the porcelain base of the lamp socket showing an edge view of the lamp socket terminal.

3 designates the shell of a lamp socket having any suitable or usual construction, 4 the cap having the usual opening through which the conducting wires 5 are led, 6 the porcelain body or member supporting the usual terminals, one of which is shown at 7. These parts of the lamp socket are or may be of any suitable or usual construction and form no part of my present invention.

The common way of connecting the conducting wires 5 to the terminals 7 is by means of binding screws 8 which screw into

the terminals and around which the ends of the wires are wound, said ends being usually clamped between the heads of the screws and terminals. In the present embodiment of my invention, each binding screw 8 or other connection between a wire 5 and the terminal to which it is connected is relieved from any strain to which the wire may be subjected by wrapping the wire around a headed projection extending laterally from the flat side of the terminal strip. This projection is designated by 9 and it will be noted that it extends laterally from the flat side of the terminal strip and from the same side thereof that the binding screw 8 does. While this projection may be made in various ways, I find it convenient to make it in the form of a screw which is screwed into the terminal. One advantage of this construction is that such a terminal can be used in lamp sockets, rosettes, etc. as now commonly made without necessitating any change in the construction of these parts.

In using the device the wire 5 after being led through the opening in the cap of the lamp socket or other fitting is wound around the shank of the screw 9 and then is carried to and connected with the binding screw 8 in usual manner.

I will preferably strip the insulation from that portion of the wire which is wound around the strain-relieving projection 9, although this is not essential. The advantage of thus stripping the wire is that the connection between the bare wire and the projection 9 will also form an electrical connection between the wire and the terminal and thus a better electrical connection may be made than where the bare wire connects to the binding screw 8 only.

By using a headed screw for the strain-relieving device, it is possible to tighten the screw after the wire is wound about the shank so that the screw not only affords frictional engagement with the wire by reason of the fact that the wire is wound about the shank, but the head of the screw acts to clamp the wire firmly against the terminal and thus to increase materially the frictional engagement between the wire and the projection. Where a construction of this sort is used, the strain-relieving device will take up the strain to which the wire is subjected and none of the strain is transmitted to the binding screw 8.

My invention may be used in other fittings

than lamp sockets as will be seen from the drawings wherein I have shown a rosette embodying the invention. This rosette comprises the usual base 10 having the cap 11 therefor, said cap having the opening 12 through which the conducting wires 5 pass. The base carries the terminals 13 to which the ends of the wires are connected in any well known way as by means of the binding screws 14. These parts of the rosette are such as are commonly found in rosettes and form no part of my present invention. In embodying my invention in a rosette of this type, the terminals 13 are provided with the projections 9 about which the wires 5 are wrapped before said wires are secured to the binding screws 14. These projections are shown in the form of screws screw-threaded into the terminals so that the wire may be wrapped about the shank of the screw and then the latter tightened to clamp the wire firmly against the head of the screw and the terminal all as described with reference to the lamp socket.

It is not essential to my invention that the strain-relief device which is associated with the terminal should be in the form of a screw although the screw has some advantages as above pointed out. A construction such as above described obviates entirely the necessity of forming a knot in the wire inside the cap of the electrical fitting and provides a simple means for relieving entirely the connection between the wires and terminals from any strain to which the wires are subjected. Furthermore the strain-relief device is situated entirely within the fitting and is of such a character that it may be applied to any fitting without changing the shape of the shell or cap.

The drawings show one only of many ways in which the invention may be embodied.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In an electrical fitting, the combination with a flat terminal strip, and means to connect a conducting wire thereto, of a headed strain relief projection extending laterally from the flat side of said terminal strip and about which the conducting wire may be wrapped.

2. An electrical fitting having a terminal provided with a binding screw for electrically connecting a wire thereto and also provided with a strain-relief screw separate from the binding screw and about which the wire is adapted to be wrapped.

3. In an electrical fitting, the combination with a terminal and a binding screw to electrically connect a conducting wire to the terminal, of an adjustable strain relief projection extending laterally from the terminal and about which the conducting wire is adapted to be wrapped.

4. In an electrical fitting, the combination with a flat terminal strip and a binding screw extending laterally from the flat side of said strip, of a headed strain-relief projection also extending laterally from said flat side of said strip, and about which the conducting wire may be wrapped.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FREDERICK A. SWAN.

Witnesses:

FREDERICK S. GREENLEAF,
LOUIS C. SMITH.