May 5, 1959 J. LONG 2,885,649

HEADLIGHT CONNECTOR

Filed April 28, 1954

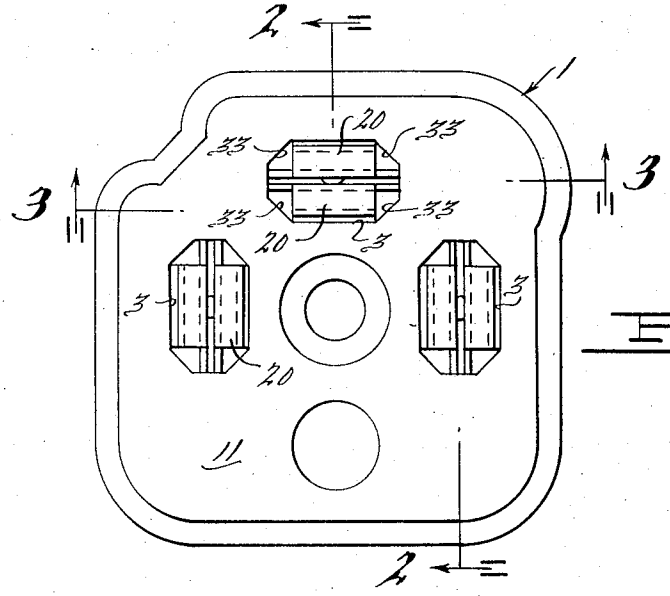


Fig. 1.

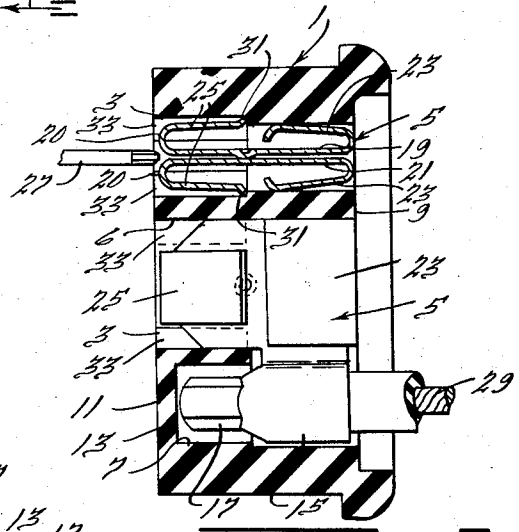


Fig. 2.

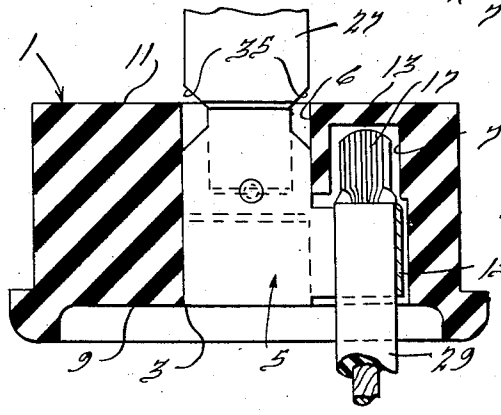


Fig. 3.

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HEADLIGHT CONNECTOR

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1 Claim. (Cl. 339—66)

My invention relates to electrical connectors and in particular to electrical connectors of the type shown in Wade Patent 2,360,917 and Falge Patent 2,296,633, i.e., headlight connectors.

Connectors of the type embodying the present invention have a housing formed of insulating material and which, in the case of headlight connectors, has three holes containing metal terminals that open out of a side of the housing and are adapted to receive flat blades or prongs on the sealed beam headlight unit or the like. In accordance with the invention the hole openings in the side through which the blades are inserted are roughly octagonal in shape to make it impossible to insert the blades behind instead of in the metal terminals and to cooperate with bevels that may be found on the ends of the blades to automatically center the blades in the terminals.

The invention is shown in the accompanying drawings in which:

Figure 1 is a side elevation;

Fig. 2 is a section on line 2—2 of Fig. 1; and

Fig. 3 is a section on line 3—3 of Fig. 1.

The headlight connector illustrated in the drawings has a housing 1 that may be molded from insulating material such as Bakelite. It has three holes 3, each of which is substantially identical to the others, and each of which contains a metal terminal 5. Each hole 3 has a section 6 that extends through the housing 1 and a section 7 which opens out of the rear 9 but not the front 11 of the housing, being separated from the front by a wall 13. Each terminal 5 is a folded over piece of metal with a tube 15 formed at the bend along with a weld pocket 17, these parts being in hole section 7. The folded over portions comprise a top and bottom 19 and 21 each of which has a folded over full width rear leg 23 and a folded over narrow width front leg 25. The legs 23 and 25 engage the walls of hole section 6 to yieldably urge sections 19 and 21 together so that when a blade 27 is inserted between them they resiliently grip it. A lead wire 29 fits in tube 15 and its stripped, stranded end 31 is spot welded in pocket 17. The terminal 5 with wire 29 attached may be inserted into the housing from the rear and its forward position is controlled by the depth of hole section 7, rearward movement being prevented when the ends of legs 25 snap over forwardly facing shoulders 31 in the hole section 6.

The blades 27 to be inserted are as wide as the terminal sections 19 and 21 and in order to prevent their insertion between the legs 25 and the walls of the hole section 6, I fill the corners 33 of the hole on an angle, preferably of 45 degrees, the result being that the hole section 6 from the shoulders 31 to the front face 11 are substantially octagonally shaped. The inner ends of the angle (i.e. adjacent the sections 19 and 21) preferably terminate somewhat below the center of the bends 20 so that the inwardly converging portions of the two bends will be engaged by a blade, this being in effect a flared mouth. When the sides of the blades 27 are beveled as shown at 35, engagement of the bevels with the slanted corners 33 will automatically cause the blade to cam inwardly to the flared mouth on the inside of bends 20, thus centering the blade between sections 19 and 21.

I claim:

A headlight connector for blade contacts having beveled side edges comprising a housing of insulating material and having a front face and a rear face, said body having three holes therein each with a first section opening out of both faces and a second section opening out of only said rear face, the opening of said first section out of said front face having a maximum width substantially the same as that of the blade, each of said holes having a folded over metal terminal therein, the portion of said terminal adjacent said fold being disposed in said second hole section and adapted to receive a lead wire, said folded over terminal having top and bottom portions each with a front and a rear reversely bent leg engaging the top and bottom walls of said first hole section to resiliently urge the top and bottom portions together, said first hole section having top and bottom shoulders facing the front of said housing against which the ends of the top and bottom front legs abut to prevent rearward movement of the terminal in the housing, said top and bottom walls of said first hole section being parallel to said top and bottom terminal portions and the side walls of said first hole section being perpendicular thereto, said first hole section between said shoulders and said front face having the four corners between said side walls and said top and bottom walls formed on angles so that it is generally octagonal in shape, the inward ends of said angles being substantially no further out than the centers of the bends of the front legs, said angles being adapted to cooperate with the beveled side edges of the blade contacts to enable each of the blade contacts to enter each of the holes before they are aligned with the front legs of said terminals and thereafter guide said blade contacts into alignment with said terminals so that they may be properly inserted between the front legs thereof.

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