Feb. 15, 1938. E. B. NOWOSIELSKI 2,108,504

ELECTRICAL CABLE CONNECTER

Filed April 11, 1935

Fig. 1

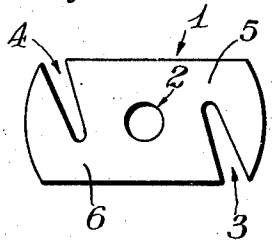


Fig. 2

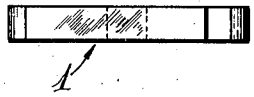
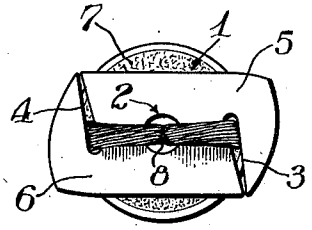


Fig. 3



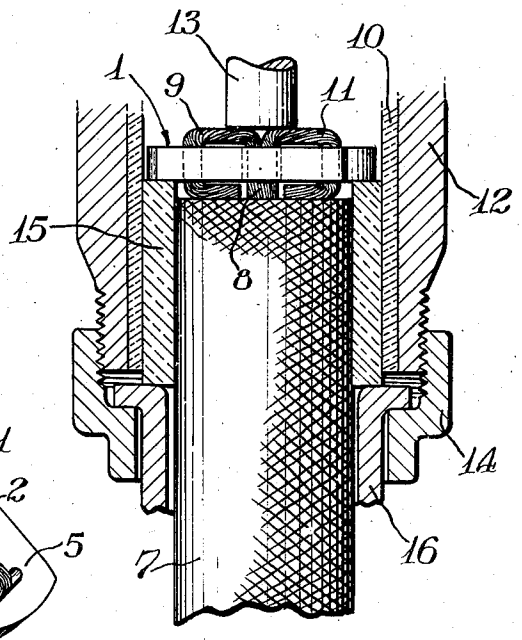
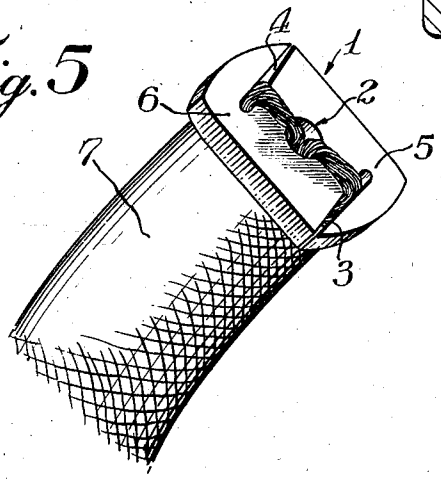


Fig. 4

Fig. 5



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ELECTRICAL CABLE CONNECTER

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Application April 11, 1935, Serial No. 15,835

4 Claims. (Cl. 173—269)

The present invention relates to an electrical cable connecter and more particularly to a solderless type of connecter adapted for either high or low tension solid or stranded conductors.

It is an object of the present invention to provide a novel cable connecter which provides a secure vibration-proof anchorage for the cable with a good electrical connection between the conductor and the cooperating terminal.

Another object is to provide such a device in which the connecter may serve to anchor the cable in operative position.

A further object is to provide such a device which is readily attached and anchored without special tools of any kind.

A further object is to provide such a device which does not require the application of heat such as would be liable to deteriorate the insulation of the cable adjacent the anchorage.

Another object is to provide such a device which does not injure the conductor of the cable or the strands thereof in case the conductor is stranded.

Another object is to provide such a device which can be readily removed when required without special tools and then may be used over again if desired.

Another object is to provide such a device which is simple and economical to manufacture.

Further objects and advantages will be apparent from the following description taken in connection with the accompanying drawing in which:

Fig. 1 is an end view of a preferred embodiment of the invention;

Fig. 2 is a side view thereof;

Fig. 3 is an end view of the connecter as attached to the end of a stranded cable;

Fig. 4 is a side view of the connecter attached to the cable and mounted in a suitable form of terminal attachment, parts being broken away to illustrate the structure; and

Fig. 5 is a perspective view of the connecter mounted on the end of a cable.

Referring first to Figs. 1 and 2 of the drawing, it will be seen that the connecter is in the form of a disc or plate 1 of suitable conducting material having a central aperture 2 and a pair of tapered slots or notches 3 and 4 extending obliquely inward from the periphery of the disc 1 so as to be laterally offset or spaced sidewise from the central aperture 2.

The slots 3 and 4 extend sufficiently toward the opposite edges of the disc so that the remaining material 5 and 6 of the disc is deformable to permit closure of the slots but has such rigidity to securely clamp a conductor placed therein.

Referring now more particularly to Figs. 3, 4 and 5, there is illustrated a cable 7 having a stranded conductor 8 to be anchored to the connecter disc 1. As there illustrated, this anchorage is effected by passing the conductor 8 through the central opening 2 of the disc and then dividing the strands of the conductor into two groups 9 and 11 which are bent outward and backward and inserted in the slots 3 and 4 of the connecter. The slots are thereupon closed to clamp the portions of the conductor therein by any suitable means such as a pair of pliers, whereby the conductor is securely anchored in the connecter.

As illustrated in Fig. 4, the connecter 1 is arranged to extend peripherally outward somewhat beyond the outer surface of the cable 7, and is used to anchor the cable in the terminal fitting. As here shown, the terminal fitting comprises a cylindrical fitting 12 with an insulating bushing or quill 10 therein surrounding the cooperating fixed terminal 13; said fitting being threaded to receive a gland 14. A suitable sleeve 15 of insulating material on the end of the cable 7 is clamped against the connecter 1 by the gland 14 either directly or through the intermediary of a lip on the end of a shield 16 for cable 7. Sleeve 15 engages the extending periphery of the disc 1 to force the bent-back portions of the conductor 8 into intimate contact with the cooperating terminal member 13.

The connecter 1 may be readily removed by prying open slots 3 and 4 by any suitable means such as a screw driver, whereupon the connecter may be re-used if desired. However, since the conductor 8 has been bent reversely prior to its insertion in the slots 3 and 4, it will be readily appreciated that accidental dislodgment of the connecter is impossible.

Although a single embodiment of the invention has been shown and described in detail, it will be understood that other embodiments are possible and that various changes may be made in the form and design thereof without departing from the spirit of the invention as defined in the claims appended hereto.

What is claimed is:

1. An electrical cable terminal member in the form of a plate having a central opening for receiving a stranded cable conductor, and a plurality of notches extending inwardly from the edges of the plate for receiving groups of strands

of said conductor, said notches being so tapered as to be smaller at their inner ends than at their mouths, the material of said plate being deformable by lateral pressure thereon to close the notches on the strands of the conductor and clamp the same therein.

2. A terminal member for a stranded electrical cable in the form of a disc of conducting material having a central opening for receiving a stranded conductor of a cable, and a plurality of slots extending inwardly from the periphery of the disc for receiving backwardly bent portions of said conductor, said slots being so tapered as to be smaller at their inner ends than at their mouths, said disc being deformable to permit closure of the slots on said portions of the conductor, said disc being sufficiently resistive to deformation to securely clamp the conductor in said slots.

3. In combination with a stranded electrical conductor, an anchoring terminal member therefor in the form of a centrally apertured disc, said conductor being threaded through said aperture, said disc having notches in the periphery thereof so tapered as to be smaller at their inner ends than at their mouths, the strands of said conductor being bent back and into said notches, said notches being closed on said strands to clamp them tightly therein.

4. In combination with an electrical conductor having an insulating sheath, an anchoring terminal member for the conductor in the form of a centrally apertured disc, said conductor being threaded through said aperture with the plane of the disc substantially normal to the axis of the conductor, said disc having a notch extending inwardly from the periphery thereof, the conductor being bent back and into said notch and clamped tightly therein, said disc having a greater diameter than said sheath, and anchoring means for the conductor including a socket receiving the sheath and means for clamping the disc therein.

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