

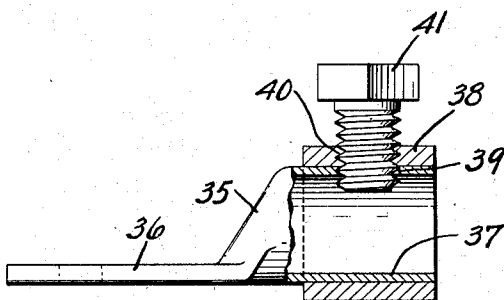
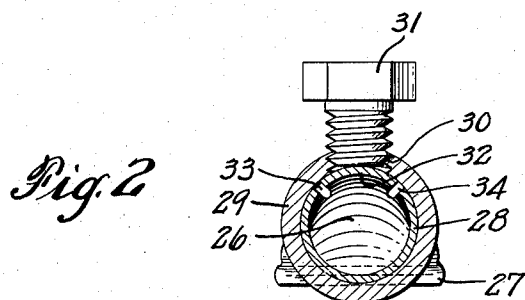
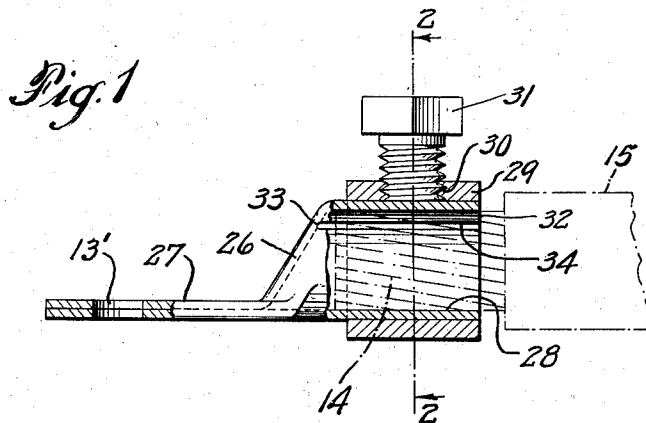
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ELECTRIC TERMINAL LUG

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ELECTRIC TERMINAL LUG

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Original application December 6, 1939, Serial No. 307,859. Divided and this application January 12, 1942, Serial No. 426,382

1 Claim. (Cl. 173—269)

This invention relates to connector terminals for stranded cables, solid wires, or the like, and more particularly to an improved type of solderless connector lug.

This application is a division of my prior original application, Serial Number 307,859, filed December 6, 1939, also entitled "Electric terminal lugs."

Heretofore it has been customary to fit the end of a cable or wire into the socket of a terminal lug and then solder it in place. While this procedure resulted in a substantially perfect electrical connection and provided a joint which did not become appreciably heated even when carrying relatively heavy current loads, the process of soldering was frequently inconvenient, and when not carefully done, resulted in damage to the insulation surrounding the conductor due to the heat required in melting the solder. Consequently, it is necessary in many cases to employ mechanical clamping means, but these devices have hitherto been inefficient and impractical, as they caused undesirable heating to occur at the conductor joint due to looseness or insufficient current carrying capacity. By means of the present invention, the above and other disadvantages have been overcome.

One object of this invention is to convert a standard type of "solder" lug into a "solderless" terminal lug having means to mechanically clamp conductors of various sizes in the socket thereof.

Another object is to provide a solderless connector lug of the above nature having a metallic reinforcing collar surrounding the conductor receiving socket, and a transverse screw passing through said socket and collar for tightly clamping said conductor therein.

A still further object is to provide an improved solderless connector of the above nature which will be relatively inexpensive to manufacture, simple in construction, compact, strong, ornamental in appearance, heat dissipating, and very efficient and durable in use.

With these and other objects in view, which will appear as the description proceeds, there have been illustrated in the accompanying drawing, one form in which the invention may be conveniently embodied in practice.

In the drawing:

Figure 1 is a longitudinal sectional view of a solderless connector lug embodying the invention.

Figure 2 is a transverse sectional view of the same, taken along the line 2—2 of Figure 1.

Figure 3 is a sectional view of a modified form of solderless connector lug.

Referring now to the drawing wherein like reference numerals designate like parts throughout

the several views, the numeral 26 denotes a standard "solder" type of connector lug having a terminal tongue 27 provided with the usual aperture 13' and a cylindrical socket portion 28 in which the bared end 14 of a conductor 15 is adapted to be received. A metallic reinforcing collar 29 is tightly fitted upon the socket portion 28, and said collar has a screw-threaded aperture 30 through which a transverse screw 31 may be threaded to engage a resilient arcuate tongue 32 formed integral with the socket portion 28 and connected thereto at its rear end. The tongue 32 is defined by a pair of parallel slits or slots 33 and 34 in said socket portion 28. In use, the screw 31 engages the curved resilient tongue 32 and forces it inwardly into good contact with the conductor without any twisting action.

In the form of the invention shown in Figure 3, provision is made of a standard solder lug 35 having a flat terminal tongue 36 and a cylindrical socket portion 37, surrounding which is a metallic reinforcing collar 38 tightly fitted thereon, said socket 37 and collar 38 being provided with screw-threaded aligned holes 40 and 39, respectively, for receiving a headed screw 41. In this form of the invention the screw 41 engages directly against the bared end 14 of the stranded cable and spreads it with a twisting action into good electrical contact with the walls of the sleeve portion 37.

While there have been disclosed in this specification two forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosures, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claim.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent, is:

In a solderless connector lug for receiving the bared end of a conductor, a metallic lug having a flat terminal tongue and a cylindrical socket continuous throughout its circumference and integral with said tongue, said bared end being adapted to be fitted within said socket without soldering, a circular metallic reinforcing collar tightly fitted upon the exterior wall of said cylindrical socket, said socket having a pair of spaced longitudinal slots in its upper half to provide a resilient tongue, and a clamping screw threaded through said collar for engaging said tongue and pressing it downwardly for clamping said bared end in said socket.

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