Nov. 22, 1927. 1,650,064

R. L. DENNIS

DEVICE FOR ATTACHING CABLES TO BATTERY TERMINALS

Filed June 16, 1925

Fig. 1.

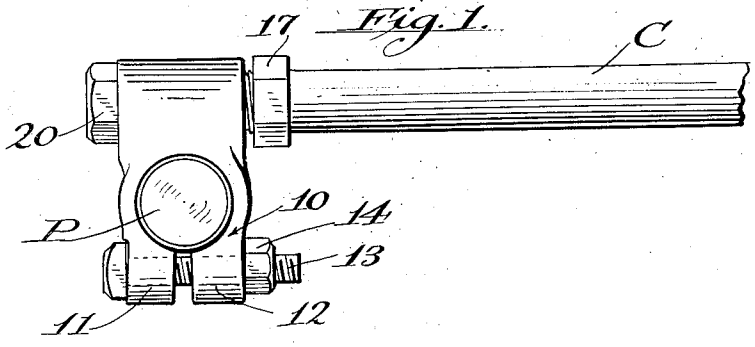


Fig. 2.

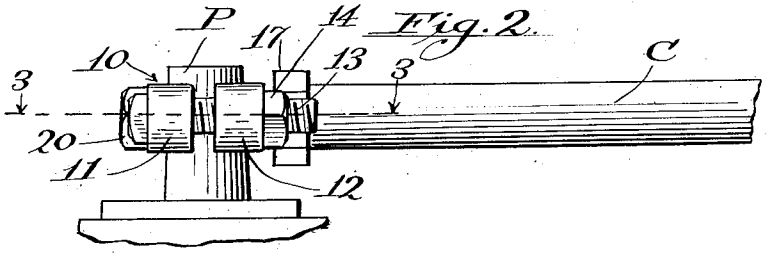


Fig. 3.

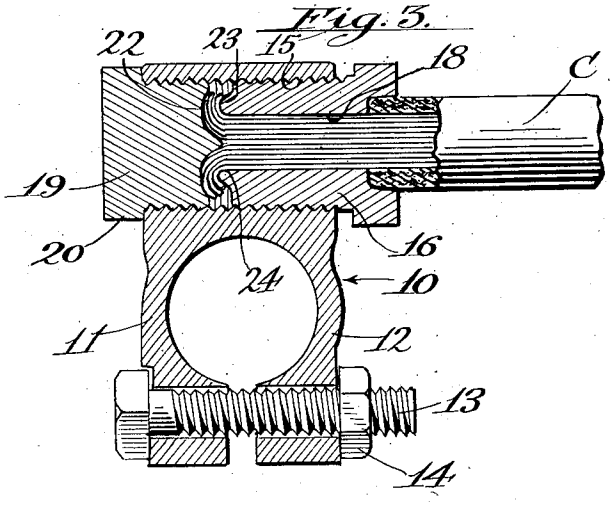


Fig. 6.

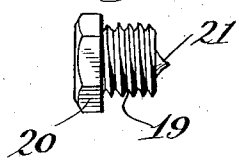


Fig. 4.

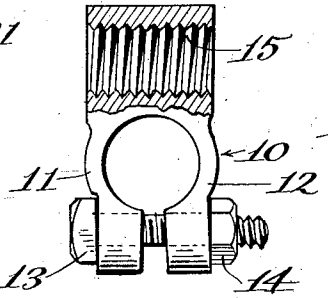
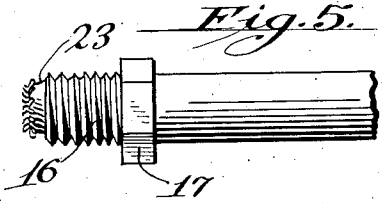


Fig. 5.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR ATTACHING CABLES TO BATTERY TERMINALS.

Application filed June 16, 1925. Serial No. 37,576.

This invention relates to improvements in battery terminals, and particularly to devices whereby a cable may be easily, quickly and firmly attached to the terminal.

An object of this invention is to provide an improved battery terminal which is so constructed as to permit cables to be easily and quickly attached thereto in such a manner as to eliminate the attachment by means of sweating heretofore employed.

With the foregoing and other objects in view which will be made manifest in the following detailed description and specifically pointed out in the appended claim, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a top plan view of the improved battery terminal with the cable attached thereto, showing the terminal as applied to a battery post,

Fig. 2 is a side elevation of the battery post, battery terminal and cable as shown in Fig. 1,

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2,

Fig. 4 is a top plan view, parts being shown in section, of the improved battery terminal,

Fig. 5 is a top plan view of the cable and the attaching member or bushing, and

Fig. 6 is a top plan view of the plug.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the invention is illustrated as being embodied upon a battery terminal, generally designated at 10, which is shown as being of a conventional construction, having two arms 11 and 12 which have their outer extremities connected by means of a bolt 13 which has a nut 14 for drawing the ends of the arms 11 and 12 together about the battery post P. It will be readily appreciated, however, that the invention may be embodied upon any type of terminal desired.

A bore or opening 15 is formed through the battery terminal 10 and is interiorly threaded. A member 16, which is in the form of a bushing having a hexagonal end 17, is exteriorly threaded and is receivable in either end of the threaded bore or opening 15. This member 16 has a bore 18 extending axially therethrough for the reception of the end of the cable C. There is also provided a threaded plug 19 which has a hexagonal or squared end 20, and this plug is also receivable in either end of the opening 15. The plug 19 is provided with a pin or tit 21, about which is formed an annular depression or concavity 22. The cable C is applied to the terminal in the following manner. The insulation about the end of the cable is stripped off of the strands of wire forming the electrical conductor of the cable. This insulation is stripped off a sufficient distance to permit the strands to be completely extended through the bore 18 with their extremities extending beyond the inner end of the member 16. Some of the strands are then bent over the rim 23 to hold the cable within the member 16 while it is being applied to the battery terminal 10. The member 16 is then screwed into the opening 15 and the plug 19 is then applied. By applying wrenches to the hexagonal ends 17 and 20 of the member 16 and the plug 19 respectively, these parts are forced toward each other within the opening 16. The pin 21 is forced into the end of the cable and serves to spread the strands, bending them over the rim 23. By so bending the ends of the strands, a firm connection is made between the cable and the battery terminal, which will also provide a good electrical connection between the cable and the battery terminal. If desired, the end of the bore 18 can be tapered, as indicated at 24, so that when the pin 21 enters the end of the bore, the strands will be firmly pressed against the interior surface of the member 16.

From the above manner of attaching the cable, it will be readily appreciated that no sweating is necessary in attaching the cable to the battery terminal. In some instances where it is desirable or insisted upon that there be a leaded connection between the cable C and the battery terminal 10, the plug 19 can be withdrawn from the opening 15 after it has spread the strands of the cable and melted lead or solder can be poured into the opening onto the ends of the strands, after which the plug 19 can again be tightened into the opening. It will also be appreciated that it is not necessary in all cases to provide the plug 19 as being a separate member from the battery terminal 10, although this is the preferred construction. In some instances the opening 15 may

constitute merely a recess extending into the battery terminal 10 and the pin 21 can be formed in the bottom of the recess, so that when the member 16 is screwed into the opening, the ends of the strands will encounter the pin and will be caused to spread thereby.

The advantages of the improved construction are that it is unnecessary to apply the cable by means of sweating, but the cable can be easily attached to and detached from the battery terminal. A further advantage is that in applying the battery terminal to the battery post P, the cable C may sometimes become twisted. In such cases the member 16 can be loosened and the cable C can be easily rotated within it, the spreaded ends of the strands preventing its being withdrawn from the member 16. In this manner a type of swivel joint is provided between the cable C and the battery terminal 10, permitting the cable to assume the desired position during the application of the battery terminal to the battery post. After it has assumed such position, the member 16 can be tightened to rigidly hold the end of the cable in place. It will also be appreciated that as the members 16 and 19 are receivable in either end of the opening 15, the cable may extend from either side of the battery terminal as desired.

It will be understood that various changes in the detail of construction may be made without departing from the spirit or scope of the invention as defined by the appended claim.

I claim:

A battery terminal having a threaded recess provided therein, a threaded member receivable in said recess having a bore therethrough through which the end of a cable is adapted to be extended, an annular ridge on one end of said member, and means providing a pin or tit at the bottom of the recess, said means comprising a threaded plug adapted to be threaded into said recess, there being an annular depression surrounding said pin or tit, said pin or tit being adapted to spread the strands of the cable and said annular ridge being adapted to force said spread strands into said annular recess whereby the same may be firmly secured against removal as and for the purpose specified.

In testimony whereof I have signed my name to this specification.

R. L. DENNIS.