March 3, 1931. M. CUTLER 1,794,757

ATTACHMENT FOR BATTERY TERMINALS

Filed April 20, 1928

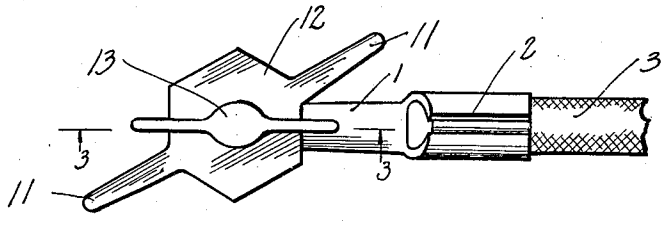


Fig. 2.

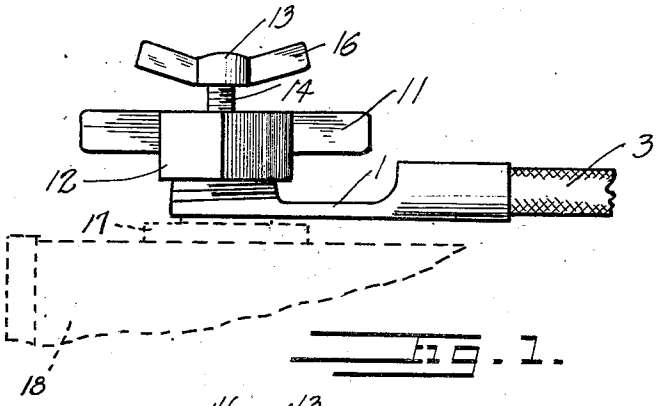


Fig. 1.

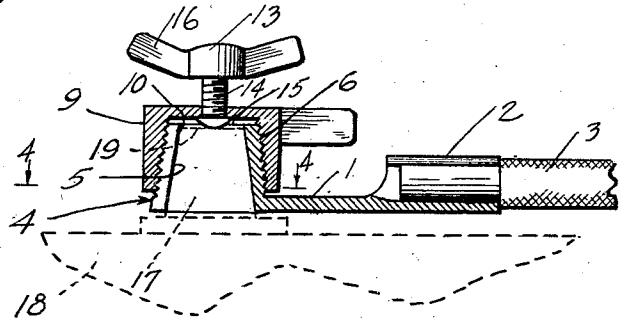


Fig. 3.

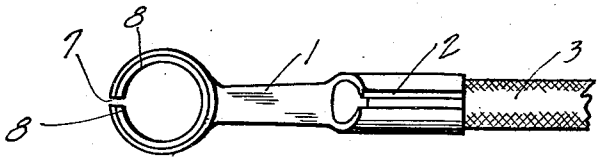


Fig. 4.

INVENTOR
M. CUTLER
BY Munn & Co.
ATTORNEYS

Patented Mar. 3, 1931 1,794,757

UNITED STATES PATENT OFFICE

MAX CUTLER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO GILLIS B. THORGNEY, OF CHICAGO, ILLINOIS

ATTACHMENT FOR BATTERY TERMINALS

Application filed April 20, 1928. Serial No. 271,566.

My invention relates to improvements in attachments for battery terminals, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide an attachment for battery terminals which has positive means whereby the attachment may be removed independently of the amount of corrosion which has formed thereupon.

A further object of my invention is to provide a device of the type described which obviates the possibility of causing destruction to the battery or the terminal.

A further object of my invention is to provide a device of the type described which may be readily actuated by hand, thus obviating the need of tools.

A further object of my invention is to provide a device of the type described which is simple in construction, positive in operation, and durable and efficient for the purpose intended.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claim.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Figure 1 is a side elevation of my device as applied to a battery terminal,

Figure 2 is a top plan view of my device,

Figure 3 is a section along the line 3—3 of Figure 2, and

Figure 4 is a section along the line 4—4 of Figure 3.

In carrying out my invention I provide a gripping member 1 having a cable connection 2 arranged to receive and hold one end of a cable 3. The gripping member 1 is provided with a head portion 4 having a tapered opening 5 therethrough and a tapered threaded outer portion 6. The head portion 4 is cut at 7, forming jaw portions 8.

An actuating or tightening portion 9 in the form of a sleeve having a closed end is provided with a tapered threaded opening 10 arranged to receive the threaded portion 6 of the head portion 4. The portion 9 is also provided with arms or wings 11 which extend outwardly therefrom. The outer edge of the portion 9 is provided with a plurality of tool-engaging surfaces 12.

A removing member 13 having a threaded portion 14 is movably disposed in a threaded opening 15 provided in the upper end of the portion 9 adjacent the center of the threaded opening 10. The member 13 is provided with a winged head portion 16.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. I have shown a terminal post 17 of a battery 18. The terminal post 17 has tapered walls and is provided with a top or end 19. The gripping member 1 is disposed in connection with the terminal post 17 so that the terminal post is received in the tapered opening 5. The member 9 is then rotated so as to be moved in the direction of the terminal post. The movement of the member 9 downwardly causes the jaws 8 to be forced inwardly due to the tapering of the threaded portion 6 and the threaded opening 10. This movement downwardly may be caused by the operator gripping the arm or wing portions 11 and manually rotating the portion 9.

It will be understood that the gripping member 1 is now positively secured to the terminal post 17. It is a well known fact that terminal connections upon storage batteries, especially the positive terminals, corrode considerably and tend to seal the connection to the terminal post. Let us assume that the gripping member 1 has been sealed to the terminal post 17, thus rendering it practically impossible to remove the gripping member in the usual manner without injuring the battery. The operator will first rotate the member 9 by gripping the arms or wings 11 so as to unscrew or loosen the gripping contact between the member 9 and the jaws 8 of the gripping member 1. The member 9 is only rotated a sufficient distance to release this gripping force upon the jaws 8. The operator then rotates the removing member 13 so as to move the member 13 inwardly until the inner end thereof contacts with the top 19 of the terminal post 17. Then by continued rotation in the same direction, the

member 9 is forced outwardly due to its threaded connection with the removing member 13 and the gripping member 1 is also forced outwardly due to the threaded connection between the jaws 8 and the member 9. In this manner positive means is provided for removing the entire connection from the terminal post 17.

It will be noted that there is a direct pull tending to draw the jaws 8 of the gripping member from the terminal post. Furthermore, due to the fact that the outer wall of the terminal post 17 is tapered and that the inner wall 5 of the jaws 8 are tapered, a slight movement of the gripping member 1 is sufficient to loosen the gripping member and allow it to be readily removed.

I claim:

A device of the type described comprising a gripping member having a head portion arranged to receive a battery terminal post, said head portion being tapered and provided with arcuate-shaped tapered jaw portions having their ends spaced away from each other, said jaw portions extending the full length of said head portion and being provided with external threads, a sleeve closed at one end and having internal threaded walls tapered to conform with the jaw for forcing said jaw portions into close engagament with the terminal post, and a screw disposed centrally in the closed end of said sleeve and arranged to engage the terminal post for forcing said head portion free from said terminal post.

Signed at Chicago, in the county of Cook and State of Illinois, this 18th day of April, A. D. 1928.

MAX CUTLER.