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2,269,296

NONCORROSIVE BATTERY TERMINAL

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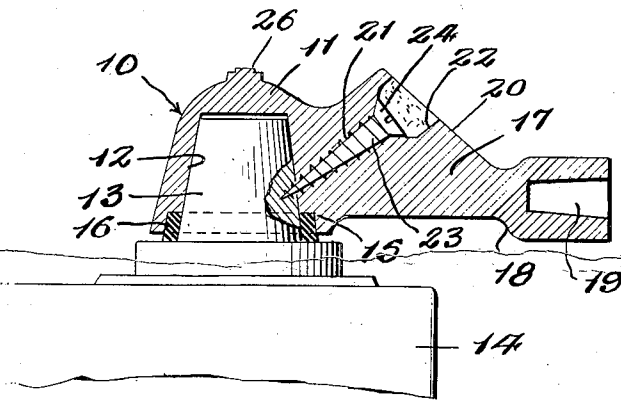


Fig. 1.

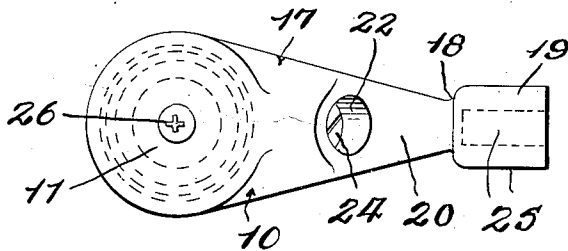


Fig. 2.

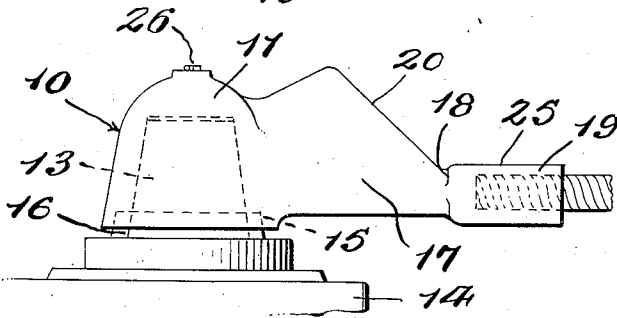


Fig. 3.

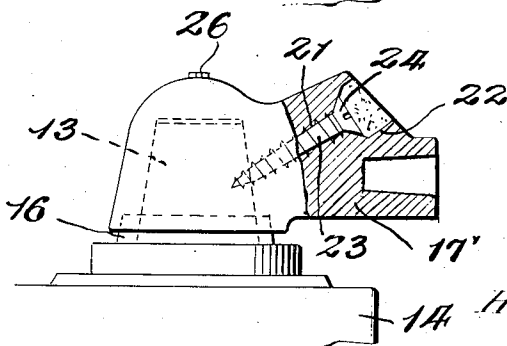


Fig. 4.

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NONCORROSIVE BATTERY TERMINAL

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1 Claim. (Cl. 173—259)

This invention relates to a non-corrosive battery terminal and it consists in the constructions, arrangements and combinations herein described and claimed.

It is a particular object of the invention to provide a battery terminal so constructed as to eliminate corrosion between a battery post and terminal of cheap construction, readily applied and removed from the post without special tools.

A further object of the invention is the provision of a terminal in which the securing means for the terminal is so located as to permit attachment to a battery post at an angle, making it possible to secure a cable to a post, regardless of the position of a battery.

It is a still further object of the invention to provide a terminal having novel means for securement to a cable without heating, melting or soldering between the cable and the terminal.

It is a still further object of the invention to provide a one-piece terminal applicable to either the positive or negative pole of a battery and in which the terminal comprises means for identifying positive or negative use of the terminal.

And finally, it is an object of the invention to provide a terminal in which a lubricant reservoir is inherent and in which the terminal includes a packing washer for retaining the lubricant in and around a battery post.

Additional objects, advantages and features of invention will be apparent from the following description considered in conjunction with the accompanying drawing, wherein

Figure 1 is a vertical sectional view through my terminal applied to a battery post.

Figure 2 is a top plan view thereof.

Figure 3 is a side elevation of the terminal having a cable attached.

Figure 4 is a side elevation of a modified form, partly in section.

There is illustrated a battery terminal 10 of one piece construction preferably formed from a soft metal such as lead and antimony, combined, although other metals may be employed as found practical and desirable.

The terminal 10 comprises a dome-shaped head 11 having a tapered socket 12 adapted to snugly seat a battery post 13 of the battery 14. Circumscribing the socket 12, an annular recess 15 is formed to receive a rubber or similar washer 16. Preferably this washer will have an opening which will snugly embrace a battery terminal, for a purpose presently to be explained, and will have a height so as to project below the socket 12.

Upon the terminal 10 there is an integral shank

17, merging from the terminal in tapering formation to a shoulder 18 from whence the shank is continued and terminates in a cable attaching socket 19. The upper face 20 of the terminal is upwardly inclined with respect to the horizontal axis thereof and extending from this face in a downwardly inclined direction so as to intersect and open upon the wall of the socket 12 there is a tapered bore 21 having an enlarged substantially deep entrance opening 22. A screw 23 complementary to the bore 21 is provided of a length to project through the lower end of the bore 21 to engage the post 13. The base of the opening 22 is shaped to snugly seat the head 24 of the screw as shown in Figures 1 and 4. The opening 22 serves as a reservoir for grease lubricant or the like, to thereby seal the screw against air, acid, etc., and which in a liquified state may seep downwardly so as to lubricate the surfaces between the post and socket.

The socket 19 is shown as of a slightly tapering formation so as to bind upon a cable when inserted therein, although the actual securement of the cable is effected by compressive force exteriorly of the socket. The compressive force may be applied in various ways, but in practice the bared portion of a cable is inserted in the socket frictionally, and then the socket 19 is placed in a vise and compressed so that the walls of the socket are flattened as indicated at 25 in Figures 2 and 3.

The construction illustrated in Figures 1, 2 and 3 are best suited for replacement of old terminals, since it is only necessary to bare the cable and compress the socket to obtain a rigid connection between the cable and terminal, but in Figure 4, there is illustrated a form which is well suited to factory assembly of the terminal and cable, since in this form, the cable may be molded directly within the socket. The only structural difference in the two forms is that the shank 17' of the latter form may be made shorter.

It will be desirable to have some distinctive marking upon the terminals to indicate a positive or a negative terminal, and therefore the dome portion of the head 11 will include a plus or minus character, as indicated at 26.

In applying the terminal 10 to a battery post, it will only be necessary to coat the socket 12 with grease or the like and apply the socket to the post 13. The washer 16 will prevent leakage of the grease, as well as protect the contacting portions of the socket and post against acids and air. The screw 23 is next screwed into engagement with the post effecting a good electrical con-

tact since the screw is actually embedded in the post. It is now only necessary to fill the opening 22 with grease to seal the screw against acid, air, etc. It should be noted that a screw driver is the only tool necessary to apply or remove the terminal from a battery post.

While I have specifically shown and described the terminal, this is by way of illustration only, and I consider as my own all such modifications in structure as fairly fall within the scope of the appended claim.

I claim:

A battery terminal comprising a body having a dome-shaped head provided with socket for reception of the post of a battery, a shank ex- 15

tended from the body and having means for reception of a cable, said shank having a face upwardly inclined in the direction of said head and having a bore inclined with respect to said socket, said bore opening upon the socket and an enlarged entrance opening adapted for reception of a sealing compound, a screw member complementary to the bore of a length to engage and penetrate a battery post and said socket having a circumscribing recess at its open end for reception of an elastic washer, whereby to effect an air and acid tight seal with a battery post.

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