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A. W. FISHER

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STORAGE BATTERY TERMINAL CONNECTER

Filed Nov. 1, 1929

Fig. 1.

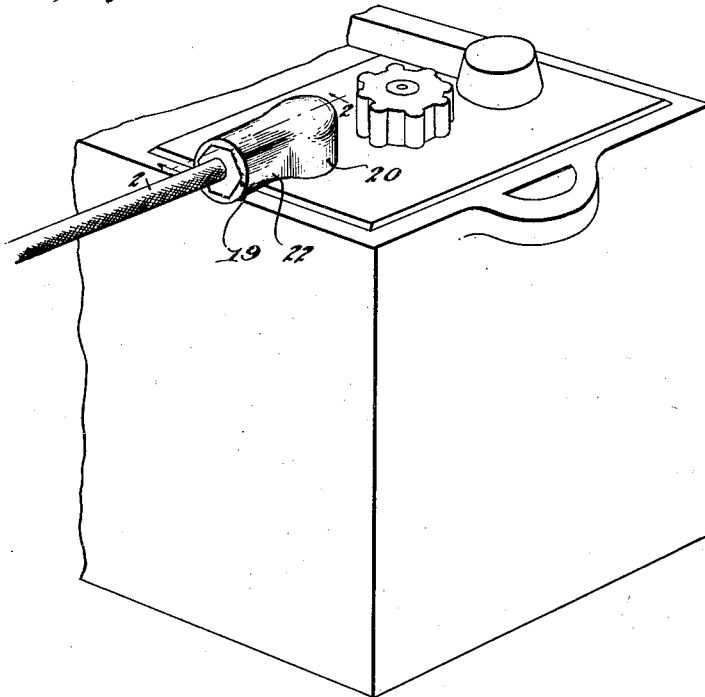


Fig. 2.

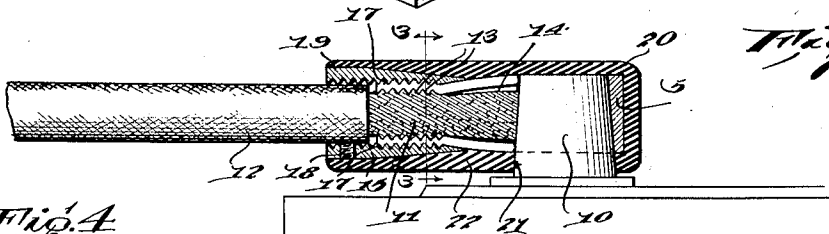


Fig. 4.

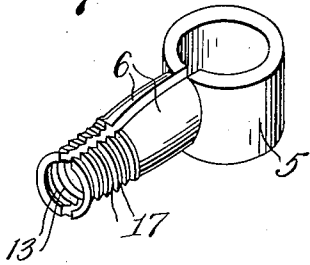
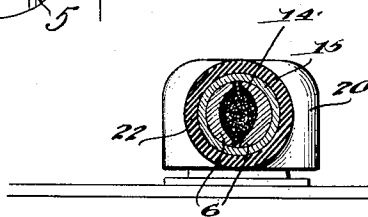


Fig. 3.



WITNESS

E. A. Mann

INVENTOR

A. W. Fisher,
BY *Munn & Co.*

ATTORNEY

UNITED STATES PATENT OFFICE

ALLAN WILLIAMS FISHER, OF ST. PETERSBURG, FLORIDA

STORAGE BATTERY TERMINAL CONNECTER

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My invention relates to storage battery terminal connectors.

I am aware that battery terminal connectors having protective housings to prevent corrosion of the terminal by the electro-lyte have been provided. It has been observed that these housings do not have a liquid tight fit on the terminal and for that reason some of the electro-lyte will pass into the housing and contact with the terminal.

With these objections in mind it is the primary object of my invention to provide a battery terminal connector which is encased in a yieldable housing which will tightly hug the battery binding post and effect a liquid seal so that it will be impossible for any of the electro-lyte or other foreign substance to find its way to the terminal and the metallic connector associated therewith.

With the preceding and other objects and advantages in mind, the invention consists in the novel combination of elements, constructions and arrangements of parts and operations to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective of my invention operatively connected with a storage battery,

Fig. 2 is a longitudinal sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a vertical transverse section taken on line 3—3 of Fig. 2; and

Fig. 4 is a view in perspective of the combined ring and clamping jaws.

Referring to the invention in detail a split resilient loop or ring 5 whose terminals are formed with laterally extending parallel transversely bowed clamps 6 is provided. The loop 5 is adapted to be received on the usual tapered battery binding post 10 and the inner face of the loop is bevelled or graduated in thickness from its lower edge to its upper edge to conform to the contour of the binding post. The skinned terminal 11 of electrical conductor 10 is arranged between the clamping jaws with one end abutting the binding post as disclosed in Fig. 2. In order to clamp the terminal 11 the opposed faces of the clamping member 6 are provided with

teeth or ribs 13 which are forced into the terminal when the jaws are forced together as will be hereinafter pointed out. The inner ends of the clamping members are flared as at 14 to permit the terminal to spread so that a maximum cross sectional area of the same will contact with the binding post.

In order to hold the clamping jaws in clamped engagement with the terminal an internally threaded sleeve 15 is provided and is engaged with exterior threads 17 on the jaws 6. When the sleeve is screwed home the interior screw threads bite into the terminal and thereby positively bind the latter to the sleeve.

The outer end of the sleeve is provided with a wrench engaging surface 19 so that the sleeve may be threaded on and off the jaws 6.

In order to prevent electro-lyte, water, etc., from contacting with the conductor 12 and the connector a housing is provided which is formed of elastic material and comprises a rounded portion 21 in which the split ring 5 is encased and a laterally extending sleeve-like portion 22 which receives the interiorly threaded sleeve 15. The interior of the sleeve-like portion 22 is flared as indicated at 23 and the exterior of the sleeve 15 is tapered. Thus the sleeve 15 may be easily inserted and removed from the sleeve-like portion 22. The rounded portion is provided with an opening 24 in its lower wall which is concentric to the split ring 5.

With the device connected with the binding post it will be seen that the walls of the opening 24 tightly hook the binding post and due to the elasticity of the housing a liquid seal is effected. It will be therefore apparent that electro-lyte, water, etc., cannot find its way into the housing and cause the metallic parts to corrode.

What is claimed is:

A storage battery connector comprising a split resilient ring provided with parallel transversely bowed clamping arms extending from the ends of said ring and adapted to receive a conductor terminal therebetween, the clamping arms being externally threaded, an internally threaded sleeve screwed

on the clamping arms and serving to hold the split ring in clamped engagement with a battery binding post and to hold the arms in clamped engagement with the battery terminal, the outer wall of the sleeve tapering inwardly from the outer end and a housing formed of yieldable rubber surrounding and snugly fitting the split ring and the internally threaded sleeve, said housing having an opening located in registration with the split ring, the walls of the opening being adapted to yieldably grip a battery binding post to effect a liquid seal around the same, the portion of the housing surrounding the sleeve having the inner walls thereof tapered in an opposite direction to the tapering of the sleeve so that when the sleeve is screwed into place the outer walls of the sleeve will form a tight fit with the inner contacting walls of that portion of the housing which embraces the sleeve.

ALLAN WILLIAMS FISHER.

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