Feb. 11, 1930. A. BAUNACH 1,746,514

BATTERY TERMINAL

Original Filed May 20, 1927

Fig. 1.

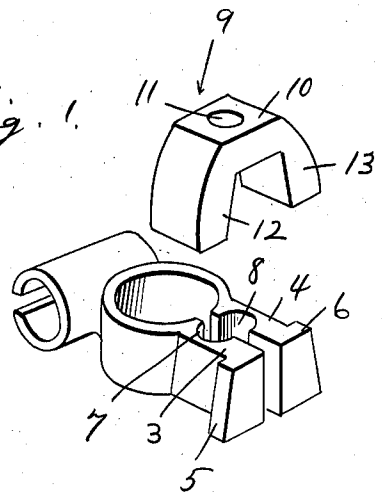


Fig. 2.

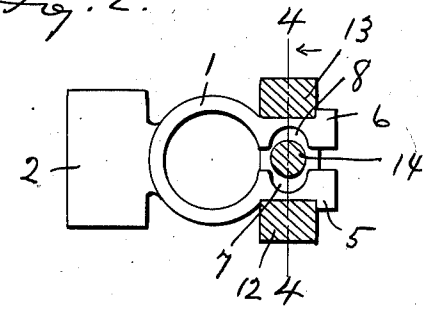
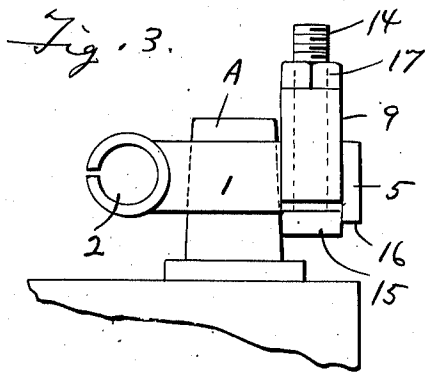


Fig. 3.



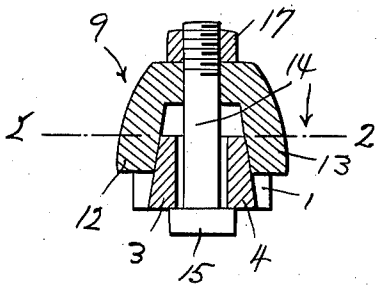


Fig. 4.

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UNITED STATES PATENT OFFICE

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BATTERY TERMINAL

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The present invention relates to improvements in battery terminals and has for its principal object to provide a storage battery connector which includes a split ring for disposition over the battery terminal post, the same being provided with means for connection with one end of a conductor cable, additional means being provided for contracting the split ring to hold the same in locked engagement on the terminal post against accidental displacement therefrom yet permitting the terminal to be readily removed from the post whenever necessary.

A further object is to provide a battery terminal of the above-mentioned character wherein a pair of leg members extend laterally from the respective ends of the split ring, the outer sides of the leg members being beveled for cooperation with the beveled inner sides or faces of the arms of a substantially inverted U-shaped clamp which is disposed over the legs whereby the split ring will be contracted when the clamp is forced downwardly for locking the ring on the battery terminal post, additional means being provided for actuating the clamp.

A still further object is to provide a battery terminal of the above mentioned character wherein the actuating means associated with the clamp is of such a character as to permit the same to be readily accessible from the top of the terminal whereby it can be easily and efficiently operated either for securing the clamp or to facilitate the removal of the same without any difficulty.

A further object is to provide a battery terminal of the above mentioned character which is simple in construction, inexpensive, and furthermore adapted to the purposes for which the same is designed.

Other objects and advantages of this invention will become apparent during the course of the following description.

In the accompanying drawing forming part of this specification and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a group perspective of the split ring showing the conductor cable attaching sleeve associated therewith and the leg members which project from the free ends of the ring and also illustrating the substantially inverted U-shaped clamp.

Figure 2 is a sectional view taken approximately on the line 2—2 of Figure 4 looking in the direction of the arrows.

Figure 3 is a side elevation of the terminal showing the manner in which the same is secured on the battery terminal post of a storage battery, and

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 2.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates a split ring and integrally associated with this ring and diametrically opposite the free ends thereof is the split sleeve 2 in which is adapted to be attached one end of a conductor cable and as is clearly illustrated in the drawing, the bore of the sleeve is disposed at right angles with respect to the bore of the split ring 1. Furthermore the bore of the split ring 1 is tapered in order to permit the same to fit properly on the battery terminal post A in the manner as clearly shown in Figure 3.

Extending laterally from the free ends of the split ring 1 are the parallel spaced leg members 3 and 4 respectively. Laterally extending shoulders 5 and 6 are formed on the outer ends of the leg members 3 and 4 respectively. The outer side of each of the leg members is beveled in the manner as clearly shown in Figure 4 and the purpose thereof will be hereinafter more fully described.

The inner opposed faces of the leg members 3 and 4 are formed with the vertically disposed complementary cut-out portions or grooves designated by the numerals 7 and 8 respectively and the purpose thereof will also be presently described.

Forming an important part of the present invention is the substantially inverted U-shaped clamp designated generally by the numeral 9, the crown portion 10 thereof being formed with an opening 11 while the inner faces of the arms 12 and 13 of this U-shaped clamp are beveled. In the pres-

ent instance, the outer sides of the arms of the U-shaped clamp are slightly curved although it is to be understood that I do not wish to limit myself to this particular shape.

In assembling the battery terminal, the ring 1 is placed over the battery terminal post A and a suitable bolt 14 is disposed upwardly between the spaced legs 3 and 4 for disposition within the complementary groove or cut-out portions 7 and 8, the bolt being disposed in an inverted position so that the head 15 thereof will engage the bottom edges of the legs and furthermore to prevent the turning of the head of the bolt, the outer ends of the legs are formed with depending shoulders 16 with which the head of the bolt 14 engages in the manner clearly shown in Figure 3.

The threaded upper end of the bolt extends upwardly through the opening 11 provided in the crown portion 10 of the inverted U-shaped clamp 9 and the beveled inner sides of the arms 12 and 13 are disposed against the beveled outer sides of the legs 3 and 4 respectively in the manner as clearly shown in Figure 4.

When the nut 17 which is threaded on the upper threaded end of the bolt is turned in one direction, the bottom of the nut being in engagement with the upper face of the crown portion 10 of the clamp 9 will force the latter downwardly and due to the coacting faces of the arms of the clamp and the leg members, said clamp will tend to contract the split ring by moving the leg members inwardly toward each other, and in this manner, the split ring will be securely fastened on the battery terminal post against accidental displacement therefrom. The beveled faces cooperate to provide a wedging action between the clamp and the leg members and obviously when the nut 17 is turned in one direction, the clamp will be forced downwardly to tightly secure the split ring on the terminal post A.

By arranging the clamp adjustment means in the manner as shown, the same is disposed on top of the battery terminal and is therefore readily and easily accessible and can be efficiently operated for either locking the clamp on the leg members or to facilitate the removal of the clamp whenever it becomes necessary to remove the battery terminal from the post of the storage battery.

The simplicity of my device enables the parts to be readily and easily adjusted and furthermore any corrosion which may collect around the terminal post will not interfere with the actuation of the nut 17 and the vertically movable clamp 9.

A battery terminal of this character may be manufactured at a very low cost and will furthermore be strong and durable.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit or sacrificing any of the advantages of the appended claims.

What I claim is:

1. A battery terminal of the class described comprising in combination, a split ring adapted for disposition over a battery terminal post, a conductor cable securing member carried by the split ring, a pair of spaced legs extending laterally from the ends of the split ring, the outer sides of the legs being beveled, the inner opposed sides of the legs being provided with complementary, vertically extending grooves, a substantially inverted U-shaped clamp for disposition over the legs, the inner sides of the arms of said clamp being beveled for wedging engagement with the beveled outer sides of the legs, lateral shoulders projecting from the outer ends of the legs for engagement with the adjacent edges of the arms of the clamp to prevent lateral movement of said clamp, and means for forcing the clamp downwardly whereby to contract the split ring for locking engagement over said terminal post, said means comprising a bolt extending upwardly in the complementary grooves, the head of the bolt being adapted for engagement with the bottom edges of the legs, the upper end of the bolt extending through the crown portion of the inverted U-shaped clamp, and an adjusting nut threaded on the upper end of the bolt and engaging the top of the clamp.

2. A battery terminal of the class described, comprising in combination a split ring adapted for disposition over a battery terminal or post, a conductor cable securing sleeve formed integrally with the split ring at a point diametrically opposite the free ends of the ring, the bore of the sleeve being disposed at right angles with respect to the bore of the split ring, a pair of spaced legs extending from the free ends of the split rings, the outer sides of the legs being bevelled from the bottom to the top sides thereof, the inner opposed sides of the legs being provided with complementary vertically extending grooves, laterally extending shoulders formed on the outer ends of the legs and disposed in an outward direction, a substantially inverted U-shaped clamp for disposition over the legs between said split ring and the respective shoulders, the inner sides of the arms of the said clamps being bevelled for wedging engagement with the bevelled outer sides of the legs, and means for forcing the clamp downwardly whereby to contract the split ring for locking engagement over the terminal post, said means comprising a bolt extending upwardly in said complementary grooves, the head of the bolt engaging the bottom edges of the legs, the

upper end of the bolt extending through the crown portion of the inverted U-shaped clamp, and an adjusting nut threaded on the upper end of the bolt and engaging the top of the clamp.

In testimony whereof I affix my signature.

AUGUST BAUNACH.