July 26, 1938. O. L. SCHANBACHER 2,125,203

BATTERY POST CLAMP

Filed Nov. 8, 1937

Fig. 1.

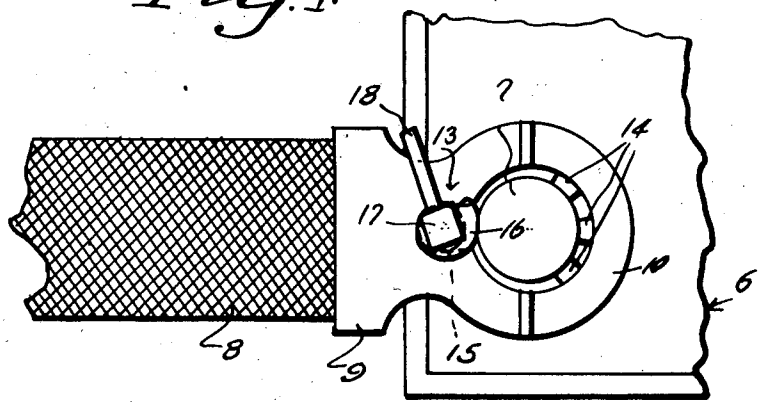


Fig. 2.

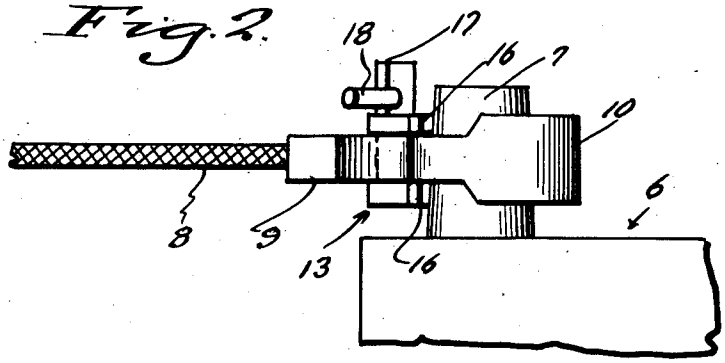


Fig. 4.

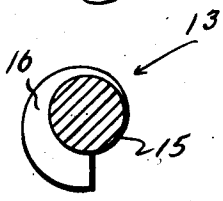


Fig. 3

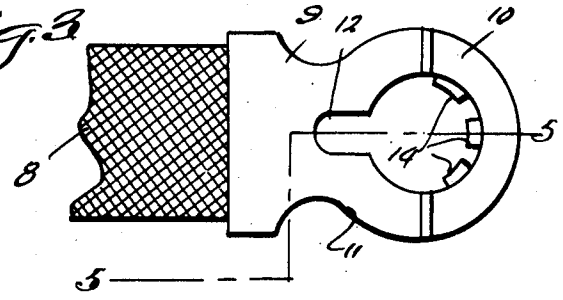
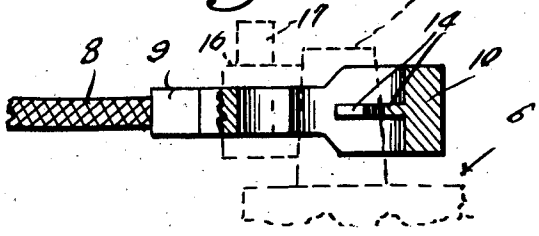


Fig. 5.



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Patented July 26, 1938 2,125,203

UNITED STATES PATENT OFFICE

2,125,203

BATTERY POST CLAMP

Orville L. Schanbacher, Mansfield, Pa.

Application November 8, 1937, Serial No. 173,494

1 Claim. (Cl. 173—259)

This invention relates to a novel mechanical clamping device usable as a terminal or connector between a current conductor strap and a storage battery, and the purpose of the invention is to generally improve upon devices of this type by providing one embodying novel improvements and refinements believed to be more aptly fitted for the purposes intended.

In working out a structure susceptible of overcoming recognized objections I have perfected a simple and expedient assembly which will afford good electrical contact, will remain effectively and firmly in place yet can be readily released and removed when occasion demands, the latter result being obtained through the use of an oscillatory locking cam.

Other features and advantages will become more readily apparent from the following descriptions and drawing.

In the drawing, wherein like numerals are employed to designate like details and parts throughout the same:

Figure 1 is a top plan view showing a fragmentary portion of the strap, the storage battery, the post, and the improved strap attaching clamp or terminal connector as perfected in accordance with my ideas.

Figure 2 is a side elevational view of the same.

Figure 3 is a top plan view of the post embracing collar or clamping head, the retaining cam unit being removed.

Figure 4 is a section through the cam retaining element.

Figure 5 is a fragmentary longitudinal sectional view on the irregular line 5—5 of Figure 3.

Referring now to the drawing by distinguishing reference numerals it will be observed that the storage battery is indicated at 6 and this is provided with the customary or conventional terminal post 7. The current conducting strap, cable or equivalent part is denoted by the numeral 8 and this is attached to the post through the medium of the improved clamping or terminal means. The preferred embodiment comprises a head or body of brass or equivalent material as at 9, this being fashioned into a ring-like collar 10 adapted to embrace the post. The main segment is of requisite vertical dimensions as shown to advantage in Figure 2 while the shank portion is thinned or flattened as at 11. This flattened shank is provided with a keeper notch 12 to accommodate the locking or retaining unit 13. Moreover, the main segment 10 is provided with a series of circumferentially spaced contact lugs 14 to effectively grip or engage the post on one side thereof. These lugs are disposed diametrically opposite to the clamping unit 13. The clamping unit is an independent part and is slipped into the collar and then inserted in the accommodation or keeper notch 12.

The locking or retaining unit 13 comprises a metal pin cylindrical in cross sectional form to provide what may be conveniently called a spindle. This is mounted for oscillation in the adapter notch 12. It is provided at longitudinally spaced points with flanges and the flanges are fashioned into simultaneously operable binding cams 16. The cams are disposed above and below the shank portion 11. The upper part of the pin is of polygonal cross sectional form as indicated at 17 to provide a convenient tool grip, and this is preferably provided with a finger grip or handle as at 18. Under ordinary circumstances, the handle 18 will serve to turn the locking unit 13 in a position to clamp it or release it, as the case may be. Under such conditions as the part 18 cannot be conveniently grasped and used, the tool grip 17 may be utilized. It is desirable however, to provide a structure which does not require the use of special tools, and hence it is proper to visualize the unit 13 as a hand oscillated retainer. When it is in the assembled position seen in Figure 5, it is obvious that the cams 16 swing in against the post and thus serve to maintain an effective engagement of the contact lugs 14 therewith. This type of grip is maintained even after the post wears, since the cams are progressively adjustable to an obvious and reasonable extent.

It is evident that the retaining unit 13 is replaceable if and when excessively worn. As a general proposition, however, it will last the life of the average car and during its use will serve advantageously and effectively.

It is thought that the description taken in connection with the drawing will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

A battery post terminal of the class described comprising a single casting of electrical conducting material fashioned to provide a collar adapted to embrace the battery terminal post, said collar including a predetermined portion built to provide a post engaging segment, said segment

having a post embracing surface provided with a plurality of battery post contacting lugs, the remainder of said collar being formulated into a flattened shank, said shank being substantially rectangular in cross sectional form and provided with a retainer accommodation notch, said notch being located diametrically opposite in relation to said post contacting lugs, and a retainer, said retainer including a spindle pin portion operable in the notch and further having upper and lower cam-shaped flanges, said flanges being disposed above and below the shank and in contact with said shank and adapted to engage the battery post, one end of said pin being provided with an operating handle.

ORVILLE L. SCHANBACHER.