Jan. 19, 1932. F. T. HUGHES 1,841,371

BATTERY CLAMP

Filed March 28, 1929

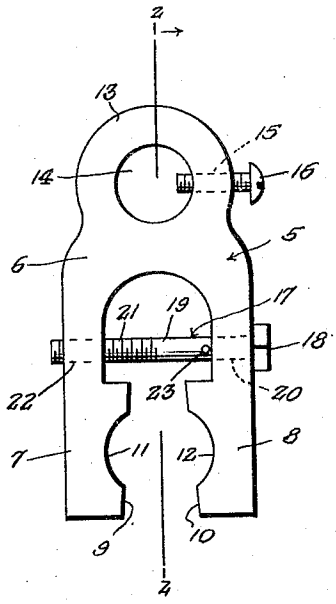


Fig. 1.

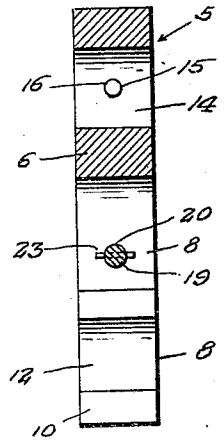


Fig. 2.

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BATTERY CLAMP

Application filed March 28, 1929. Serial No. 350,739.

This invention relates to battery clamps and an object of the invention is to provide a device of the character referred to, for attachment to a battery post in a horizontal plane with respect to the top of the battery.

Other objects of the invention are to provide, in a manner as hereinafter set forth, a device of the character referred to, which is strong, compact and durable, highly efficient for its intended purpose, thoroughly reliable in its operation, very simple in its assembly and construction, and comparatively inexpensive to manufacture and install.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawings, wherein there is shown an embodiment of the invention, but it is to be understood that changes, variations, and modifications, may be resorted to, without departing from the spirit of the claims hereunto appended.

In the drawing, wherein like reference characters denote corresponding parts throughout the several views:

Figure 1 is an elevation of the device in accordance with this invention.

Figure 2 is a central longitudinal sectional view, taken on the line 2—2 of Figure 1.

This invention is to be understood as an improvement on my battery terminal clamp, application Serial No. 314,415, filed October 23, 1928.

Referring to the drawing in detail, wherein is shown an embodiment of the invention, 5 indicates generally the substantially yoke-shaped body portion having a bight portion 6 and a pair of legs 7 and 8, all of which are formed, integral with the body portion.

The inner opposed faces 9 and 10 of the respective legs 7 and 8 incline upwardly from the lower ends of the legs for a portion of the length of the respective legs. The inclined faces 9 and 10 adjacent the lower ends of the legs are formed with a pair of aligned transversely extending arcuate concavities 11 and 12 adapted to abut the binding post on a storage battery. The body portion 5 may be formed of metal adapted for conducting electrical current

The legs 7 and 8 are resilient to a degree where the clamp is self sustaining upon the battery post, without the aid of an external locking means.

The bight portion 6 of the body 5 is formed with an upwardly directed boss on its upper end and the boss is provided with a circular opening 14, extending transversely entirely through its wall. While the opening 14 is preferably formed in the position shown in Figure 1 of the drawing, it is within the contemplation of the invention to have the opening extend in any desired direction. The plane of extension of the opening 14 is disposed at an angle with relation to the legs 7 and 8, and preferably in a plane perpendicular thereto. By having the opening 14 disposed in the relation shown in Figure 1 of the drawing, the terminal of the conductor wire, (not shown in the drawing) may be connected therewith in the desired plane with respect to the body portion of the clamp so as to provide for all conditions arising in the use of the battery. One of the walls of the boss 13, surrounding the opening 14 is provided with a smaller threaded opening 15 which extends from the outer face of the boss and communicates with the circular opening 14.

Threadably mounted in the smaller opening 15 is a set screw 16 which is adapted to detachably fix the terminal of the conductor wire in the opening 14. It is pointed out that the opening shown at the opening 15 may be disposed at any angle around the boss 13, and as long as the said opening 15 is projected radially with respect to the circular opening aforementioned. Since the legs 7 and 8 are resilient to a degree of being self-sustaining on a battery post, by abutment therewith, it is within the contemplation of the invention to provide a means for locking the legs about the binding post and said means is indicated generally at 17. The locking means 17 consists of a cylindrical bolt having a head 18 in abutment with the outer face of the leg 8, a plain portion 19 extending through an opening 20 in the leg 8 and a

threaded portion 21 thereof threadably mounted in a threaded opening 22 in the opposite leg 7. The openings 22 and 20 extend entirely through the walls of the legs 7 and 8 and are in transverse alignment with each other. A pin 23 extends diametrically through the plain portion 19 of the bolt having the laterally disposed shoulders of the pin in abutment with the inner face of the leg 8, for the purpose of preventing longitudinal movement of the bolt. From the above description, it will be apparent that by turning the head 18, the legs 7 and 8 will be drawn toward each other for clamping the post of the battery between the concavities 11 and 12.

It is pointed out with respect to the present invention that the clamp is adapted for being utilized for connecting the terminal end of an electrical conductor wire with a binding post on a battery or a binding post without a battery constructed and attached to any switch board or electrical apparatus regardless of whether the current is used in an automobile, a radio set, a charging apparatus or any other electric appliance. It is furthermore pointed out that the concave surfaces 11 and 12 clean the binding post of the battery as the concave faces yieldingly grip the post as the clamp is attached or removed therefrom.

It is furthermore pointed out that the boss 13 with its structure hereinbefore described and illustrated is adapted for use with my vertical clamp Serial No. 314,415 filed October 23, 1928, and above referred to.

What I claim is:

1. A battery clamp comprising a yoke-shaped body having a pair of spaced elongated legs, said legs having registering concavities at their free ends adapted to receive a battery post therein, said legs having an inherent resiliency to normally bind said legs at said concavities against the opposite sides of said post, a clamping bolt engaging through the legs intermediate said concavities and the bight of said yoke-shaped body to spring the intermediate portions of the legs toward each other and bind the concave portions of the legs against the post and turn the same against the post to bite into the surface thereof, said yoke-shaped body having an apertured boss at its outer end to receive the terminal of an electrical conductor.

2. A battery clamp, comprising a one-piece relatively flat and long body portion having a conductor terminal receiving opening near one end extending through the opposite faces of the body portion, said body portion being bifurcated through its opposite end and through the major portion of its length to provide relatively long spaced apart legs, the free end portions of the legs having at their inner sides concave battery post receiving faces, and a clamping screw secured through the legs at points spaced inwardly from said concave faces for drawing the legs toward each other and yieldingly binding said concave faces against the opposite sides of a battery post.

In testimony whereof I affix my signature.

FRED T. HUGHES.