Feb. 24, 1942. W. E. ST. GEORGE 2,274,437

BATTERY TERMINAL CLAMP

Filed June 8, 1940

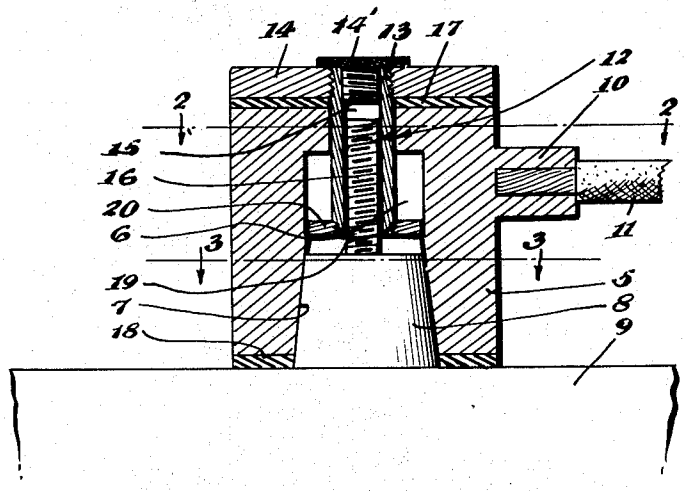


Fig. 1.

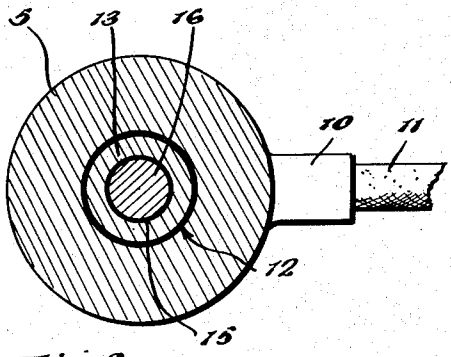


Fig. 2.

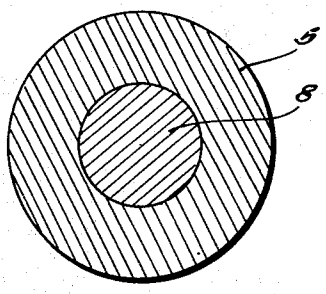


Fig. 3.

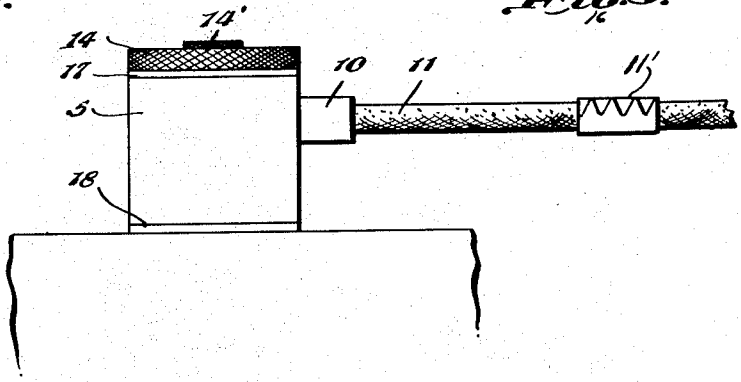


Fig. 4.

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BATTERY TERMINAL CLAMP

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2 Claims. (Cl. 173—259)

This invention relates to improvements in battery terminal clamps.

It is an object of the invention to provide a clamp which will establish a tight and positive connection between the terminal cable and terminal post of a battery.

A further object of the invention resides in providing a terminal clamp which may be readily applied and removed from the terminal post.

A still further object of the invention resides in providing a clamp which when applied to the post will form an effective seal to prevent corrosion of the terminal.

Another object of the invention is to provide a clamp of the above-mentioned character which is simple and durable in construction, reliable and efficient in use and inexpensive to manufacture.

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

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

Fig. 1 is a vertical sectional view of the clamp applied to a battery terminal,

Fig. 2 is a section taken on line 2—2 of Fig. 1,

Fig. 3 is a section taken on line 3—3 of Fig. 1, and,

Fig. 4 is a side elevation of the clamp applied to a battery.

In the drawing wherein for the purpose of illustration I have shown a preferred embodiment of my invention, the numeral 5 denotes the body of the clamp which is provided with a central vertical recess 6 in the bottom thereof, the lower end of the recess being tapered, as at 7, to receive the correspondingly shaped terminal post 8 of a battery 9. A boss or socket 10 is formed integral with the side of the body to receive the terminal cable 11 which is secured therein in the usual manner. The top of the body 5 has a central bore 12 communicating with the recess 6 and rotatably mounted in the bore is a sleeve 13 which projects into the recess 6 and threaded on the upper end of the sleeve is a circular hand knob 14 by means of which the sleeve is turned. A cap screw 14' having a left hand thread is screwed into the upper end of the sleeve 13, to lock the hand knob in place. The bore 15 of the sleeve 13 is provided with internal right hand screw threads adapted to receive the screw threaded stud 16 tapped into the top of the battery post 8 and projecting upwardly therefrom whereby connection is established between the clamp and battery post upon turning of the sleeve is a clockwise direction. A gasket 17 is fitted over the sleeve 13 and is clamped between the knob 14 and top of the body 5 to provide a leak proof joint at the top of the clamp. A gasket ring 18 is fitted over the battery post 8 and is engaged by the bottom of the clamp to provide a leak proof joint between the bottom of the clamp and top of the battery. The lower end of the sleeve 13 is provided with exterior left hand screw threads 19 to receive a collar 20 of like thread having a diameter slightly less than that of the recess 6 which is adapted to engage the top wall of the recess when the sleeve 13 is turned in a counterclockwise direction whereby the body 5 is forcibly lifted from the battery post. If desired the recess 6 may contain a suitable corrosion inhibitor such as "Vaseline" or grease. A splicing sleeve 11' of conventional type is shown mounted on the cable 11 in Fig. 4, but forms no part of the present invention.

In use, the clamp is assembled by first securing the hand knob 14 on the upper end of the sleeve 13 and then placing the gasket 17 over the sleeve 13, before passing the sleeve through the bore 12 of the body 5 and screwing the collar 20 on the lower end of the sleeve whereby the sleeve is loosely connected to the body so that it is free to rotate and reciprocate in the bore 12. When applied to a battery post the body is fitted over the post to bring the sleeve 13 into engagement with the stud 16 and upon turning of the sleeve in a clockwise direction the body 5 and post 8 are drawn into tight fitting engagement. Upon turning the sleeve 13 in the opposite direction the collar 20 is brought to bear upon the top wall of the recess 6 thus forcibly lifting the body 5 from the post 8 which facilitates the removal of the clamp from the battery post.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same and that certain changes in the shape, size, and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A battery terminal clamp comprising a body having a central recess adapted to receive a battery post, a threaded stud projecting from the top of the battery post, an internally threaded sleeve rotatably and slidably mounted through the top of said body adapted to threadedly engage said stud, means on the upper end of said

sleeve for turning said sleeve whereby said sleeve is moved up and down on said stud, and a collar fixed on the lower end of said sleeve within the recess of said body adapted to contact the upper end of the recess when said sleeve is moved upwardly whereby said body is forcibly removed from the battery post.

2. A battery terminal clamp comprising a body having a central recess adapted to receive a battery post, a threaded stud projecting axially from the top of the battery post, an internally threaded sleeve rotatably and slidably mounted through a bore in the top of said body, said sleeve extending into the recess of said body and having threaded engagement with said stud, a knob secured on the upper end of said sleeve for turning said sleeve whereby the sleeve is moved up and down on said stud, said knob being adapted to contact the top of said body when the sleeve moves down, and a collar secured to the lower end of said sleeve within the recess of said body, said collar being slidable within the recess and adapted to contact the upper end thereof when said sleeve moves upwardly.

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