July 10, 1934. J. SCHMIDT 1,965,712

TERMINAL CLAMP

Filed Feb. 12, 1932

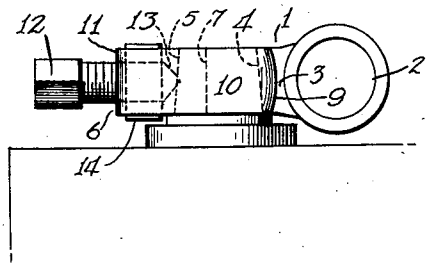


Fig. 1.

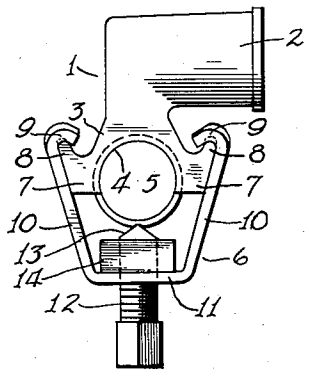


Fig. 2.

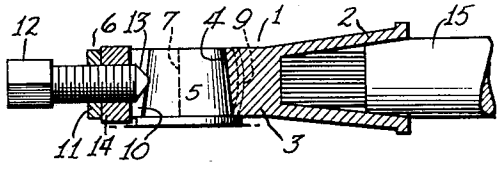


Fig. 3.

INVENTOR.
JACOB SCHMIDT
BY Munn & Co.
ATTORNEYS.

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TERMINAL CLAMP

Jacob Schmidt, Tracy, Calif.

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2 Claims. (Cl. 173—259)

My invention relates to improvements in terminal clamps, and it consists of the combinations, constructions and arrangements hereinafter described and claimed.

An object of my invention is to provide a terminal clamp which is simple in construction and which makes use of a casting having a bore for receiving a cable and a yoke for bearing against the terminal. A clamp cooperates with the yoke and carries a bolt that engages with the terminal and causes the clamp to move the yoke into binding engagement with the terminal. The device may be quickly removed from the terminal and applied thereto.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing forming a part of this application, in which

Figure 1 is a side elevation of the device;

Figure 2 is a top plan view; and

Figure 3 is a longitudinal section through the device showing the cable-receiving bore in alignment with the axis of the bolt.

In carrying out my invention, I provide a casting, indicated generally at 1, having a cable-receiving socket 2 and an integral yoke 3. The recess 4 in the yoke is slightly larger than the diameter of the terminal or binding post 5, and the recess is conical shaped so as to conform with the conical binding post.

The material of the casting 1 is sufficiently elastic to allow of a slight spring action, and this permits the sides of the yoke, which are normally spaced from the post 5, to be pressed down upon the post by the pull of a clamp 6.

It will be noted from Figure 2 that the yoke 3 has arms 7 with projections 8, and these projections are engaged by the hook-shaped ends 9 of the clamp 6. The hooks 9 and projections 8 are also curved in the direction of their widths to prevent slipping. The sides 10 of the clamp are inclined toward each other, and the base 11 carries a bolt 12, the bolt having a conical end 13 for engaging with the post 5. It will be seen from this that when the bolt 12 is tightened in the nut 14, it will cause the arms 10 to pull upon the sides 7 and cause the recess 4 to contract and to bind upon the post 5. In this way, a firm connection is established between the post and the casting 1.

The sectional view shown in Figure 3 also illustrates how the socket 2 may be disposed in alignment with the axis of the bolt 12 instead of at right angles as shown in Figures 1 and 2. I further show the cable 15 received in the socket.

When loosening the device from the post, the bolt 12 is merely turned so as to free the point 13 from the post 5, and this will permit the sides 7 of the yoke 3 to resume a normal position—that is, to move away from the post a slight distance. This frees the casting from the post and the device may be quickly removed.

The principal advantages of the device are its ease of removal from the post, its perfect grip on the post and its economy of space. It does not interfere with the plugs on the battery. The device may be manufactured at a reasonable cost because it is simple in construction.

While I have shown only the preferred form of my invention, it should be understood that various changes or modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. The combination with a battery terminal post, of a yoke-shaped connector having a semi-circular recess for receiving the post, said yoke having gripping portions disposed on each side of the recess, a U-clamp having its ends bent for engaging with the gripping portions, means bearing against the post for tightening the connector and clamp around the post, said gripping portions and the bent ends of the clamp being arcuate in shape for permitting the clamp to swing into an angular position with respect to the connector when the device is tightened on the post.

2. The combination with a battery terminal post, of a yoke-shaped connector made of spring material and having a semi-circular recess for receiving the post and having a slightly larger diameter than the diameter of the post, said yoke having gripping portions disposed on each side of the recess, a U-clamp having its ends bent for engaging with the gripping portions, the yoke and clamp entirely encircling the post, and a set screw carried by the clamp and bearing against the post, said screw when tightened causing the clamp to pull the arms of the yoke toward the post, whereby the wall of the recess is restricted and makes an electrical-tight connection with the post, said gripping portions and the bent ends of the arms being arcuate in shape for permitting the clamp to swing into an angular position with respect to the yoke when the device is tightened on the post.

JACOB SCHMIDT.