

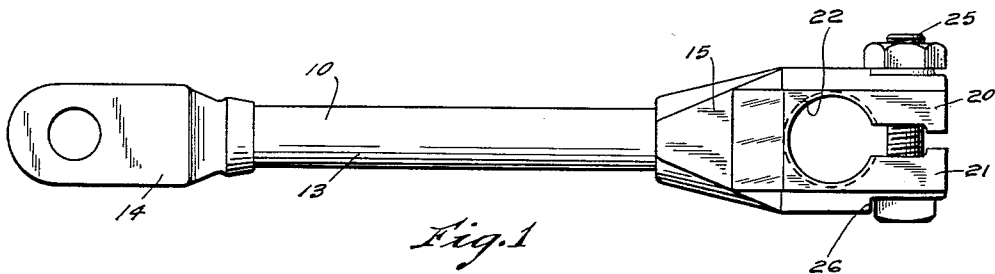
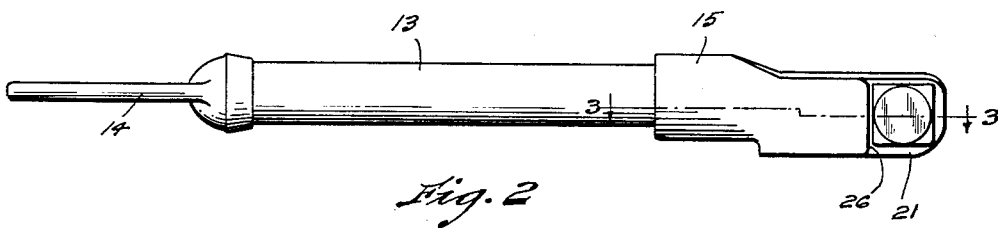
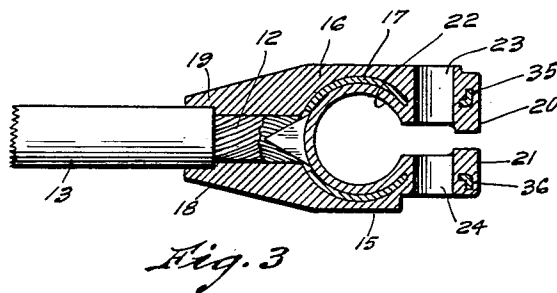
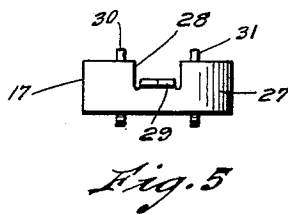
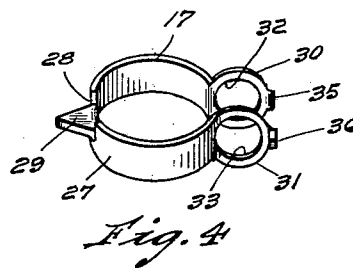
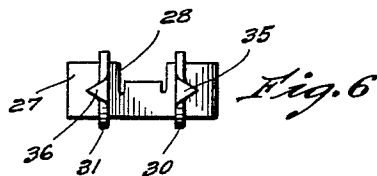
July 12, 1955

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2,713,155

BATTERY CLAMP

Filed Sept. 21, 1953



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2,713,155

BATTERY CLAMP

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Application September 21, 1953, Serial No. 381,308

4 Claims. (Cl. 339—227)

The present invention relates to electrical connections and has particular reference to the construction of a battery terminal for clamping a cable to a battery binding post.

The principal object of the invention is to provide a battery terminal clamp of soft metal having an imbedded reinforcing clip.

Another object of the invention is to provide a reinforced battery terminal clamp which is relatively free from fracture under the strain of clamping upon a battery post.

A further object of the invention is to provide a reinforced battery terminal clamp which resists deformation of the parts while providing effective contact when tightening force is exerted.

An additional object of the invention is to provide a battery terminal clamp of cast soft metal having a reinforcing insert, the insert having centralizing parts for positioning within the mold during the casting operation.

With the above and other objects and advantageous features in view, the invention consists of a novel arrangement of parts, more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more specifically defined in the claims appended thereto.

In the drawings,

Fig. 1 is a top view of an illustrative connector with the novel terminal connector clamp;

Fig. 2 is a side view thereof;

Fig. 3 is a section on the line 3—3 of Fig. 2;

Fig. 4 is a perspective view of the reinforcing clip;

Fig. 5 is a rear end view thereof; and

Fig. 6 is a front end view thereof.

It has been found advisable to provide a battery terminal clamp of cast metal, with a sheet metal reinforcing insert in the form of a ring clip, the clip having parts which serve to position it centrally within the mold during the casting operation, whereby the clip is completely encased. To this end, I form the clip, which is preferably of resilient sheet metal, with a tongue to be wedged into the end of a cable wire, and with spaced ring ears having outwardly extending prongs, whereby the tongue holds the clip in central vertical position and the ear points hold the clip in central transverse position in the mold during the casting operation, to properly imbed the clip in the softer encasing cast metal.

Referring to the drawings, Fig. 1 shows an illustrative battery cable 10, consisting of a lead having a strand wire core 12 and an insulating cover 13, a lug connection 14 at one end, and a battery terminal clamp 15 at the other end.

The battery terminal clamp 15 is of cast soft metal 16 having an imbedded steel clip 17, and includes a body 18 with a thimble 19 at one end into which the cable wire core 12 and the cover end extends, the body 18 having two spaced jaws 20, 21 at the other end, and an arcuate inner surface 22 forming an aperture for

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seating a battery post therein, the jaws having aligned bores 23, 24 for receiving a lock bolt 25, one jaw 21 being cut away to provide a shouldered recess 26 for the bolt head.

The sheet metal clip 17 is ring shaped, as shown in Fig. 4, and includes an annular split band base 27 having a rear recess 28 extending from the upper edge to the median portion, and a rearwardly extending horizontal centrally positioned tongue 29 of generally triangular form, which extends into the strand wire core 12. The ring base 27 has two forwardly extending parallel ears 30, 31 of circular form and with openings 32, 33 aligned with the bores 23, 24 of the jaws 20, 21, the forward portions of the ears having laterally outwardly extending prongs 35, 36 at their outer ends.

When casting the battery terminal clamp, the clip is inserted into the mold, with the tongue 29 inserted into the wire core end. The tongue is thus held to centrally position the clip horizontally in the mold; the ear prongs keep the clip centrally in transverse relation to the sides of the mold, whereby the clip is completely embedded in the cast metal. The rear recess 28, the tongue 29, and the ear prongs 35, 36 also serve to lock the clip 17 in the body.

Although I have disclosed a specific construction of my invention, it is obvious that changes in the size, shape and arrangements of the parts may be made without departing from the spirit and the scope of the invention as defined in the appended claims.

I claim:

1. A metal clip insert for a battery terminal clamp, having an arcuate base and two forwardly extending parallel ears having aligned openings, said base having a rearwardly extending tongue and said ears having laterally extending positioning prongs at their outer ends, said tongue and said prongs serving to aid in the positioning of said insert when a body is cast around the latter.

2. A metal clip insert for a battery terminal clamp, having an arcuate base and two forwardly extending parallel ears having aligned openings, said base having a rear recess and a centrally positioned rearwardly extending tongue and said ears having laterally extending positioning prongs at their outer ends, said tongue and said prongs serving to aid in the positioning of said insert when a body is cast around the latter.

3. A battery terminal clamp, comprising a body of soft cast metal having an arcuate inner surface providing a battery terminal seat, a thimble at one end for receiving a cable wire, and spaced jaws at the other end, said jaws having aligned bolt receiving bores, said body having a hard metal reinforcement member imbedded therein, said member having an arcuate base concentric with the arcuate body inner surface and two forwardly extending ears extending into the body jaws, said ears having openings therethrough aligned with the bolt receiving bores, said member having a tongue extending into the thimble for insertion into the cable wire end, and said ears having laterally extending prongs at their outer ends, said tongue and said prongs serving to aid in the positioning of the member within the cast metal body.

4. A battery terminal clamp, comprising a body of soft cast metal having an arcuate inner surface providing a battery terminal seat, a thimble at one end for receiving a cable wire, and spaced jaws at the other end, said jaws having aligned bolt receiving bores, said body having a hard metal reinforcement member imbedded therein, said member having an arcuate base concentric with the arcuate body inner surface and two forwardly extending ears extending into the body jaws, said ears having openings therethrough aligned with

the bolt receiving bores, said member having a rear recess and a tongue extending into the thimble for insertion into the cable wire end, and said ears having laterally extending prongs at their outer ends, said tongue and said prongs serving to aid in the positioning of the member within the cast metal body. 5

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