Nov. 21, 1950 H. E. RUTHERFORD 2,531,162

BATTERY CONNECTOR

Original Filed Aug. 19, 1947

FIG. 1.

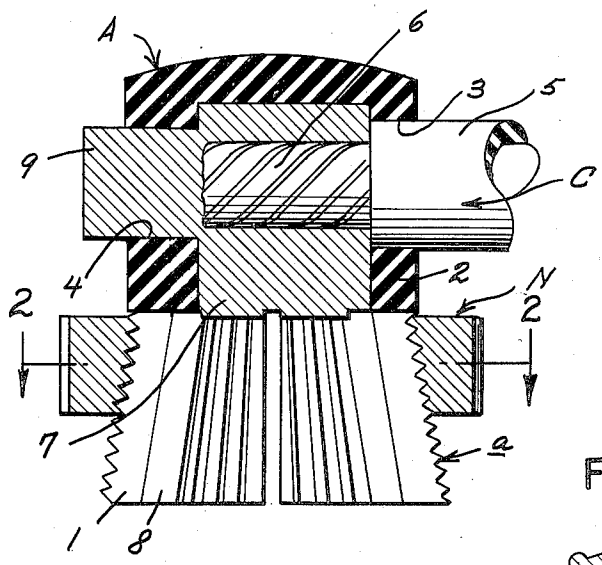


FIG. 2.

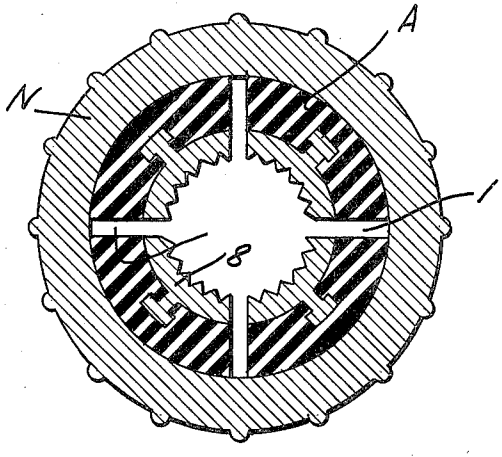
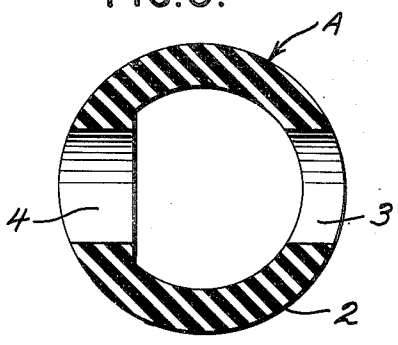


FIG. 3.



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Patented Nov. 21, 1950 2,531,162

UNITED STATES PATENT OFFICE

2,531,162

BATTERY CONNECTOR

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Original application August 19, 1947, Serial No. 769,505. Divided and this application July 9, 1948, Serial No. 37,916

1 Claim. (Cl. 173—259)

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This invention relates to a battery terminal and has particular relation to a device of this kind for use with an insulated cable and it is an object of the invention to provide a terminal which provides a connection with a cable which effectually eliminates oil or grease saturation and an effective resistant to heat and protection against acid.

The invention consists in the details of construction and in the combination of the several parts of my improved battery terminal whereby certain advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:

Figure 1 is a view partly in section and partly in elevation illustrating a terminal embodying the invention;

Figure 2 is a sectional view taken substantially on the line 2—2 of Figure 1; and

Figure 3 is a cross sectional view taken through the thimble with associated parts omitted.

In the embodiment of the invention as illustrated in the accompanying drawing A denotes a thimble or shell of suitable material nonconductive of electricty and preferably of plastic. This thimble or shell A has its open end continued by a skirt *a* disposed normally on an outward flare of desired angle and which at points spaced circumferentially therearound is split as at 1 so that said skirt *a* may be readily contracted for effective clamping action upon a battery post or the like upon proper turning movement of the nut N, which threads upon the skirt *a*, as clearly illustrated in Figure 1 of the drawing.

These slots 1 are shown in Figure 2 as four in number although it is to be understood that they may be varied in accordance with the preferments of practice.

The side wall 2 of the shell or thimble A at diagrammatically opposed points has disposed therethrough the aligned openings 3 and 4. It is to be noted that the diameter of the opening 3 is such to snugly receive in the completed assembly, the end portion of the insulating covering 5 comprised in the cable C immediately adjacent to the bared extremity 6 of the cable. This fitting of the insulated cover 5 of the cable C within the opening 3 is of advantage as thereby is substantially eliminated the hazards resulting from overheating, oil and grease and other conditions which in the ordinary assembly of battery terminals with the cable prove very unsatisfactory. It may be further added that this arrangement of the insulating cover within the opening 3 provides for acid resistance.

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The bared extremity 6 extends a major distance across the interior of the thimble A and after being inserted there is molded within the thimble A a filler or block 7 of an alloy conductive of electricity. In the molding operation there is also formed on the inner faces of the apron *a* between the slits 1, the liners 8.

As a result of the molding operation the filler or block 7 tightly surrounds the bared portion 6 of the cable C whereby the cable is effectively held against separation.

As the block or filler is molded the material fills the second opening 4 and extends outwardly therebeyond to provide an outstanding lug or button 9 with which a conventional recharging clip may be engaged.

After the apron *a* has been disposed over the usual battery post, the nut N is rotated in a direction to effect a restriction of the apron *a* in a manner to effectively clamp the battery terminal as a unit to such post.

From the foregoing description it is thought to be obvious that a battery terminal constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

A battery terminal connector for an insulated cable having an end portion of its conductor bared, comprising a body of an insulating material formed to provide a cylindrical top part and a flared annular lower part, a metal body embedded in said cylindrical part and having its lower end exposed at the upper end of the opening through said flared part, said metal body having a bore opening laterally outward and aligned with an opening in the side of said cylindrical part for the tight fit of said bared end of the cable therein with the adjacent end of the insulation of the cable tight fitted in the opening in the cylindrical part, a lug projecting laterally from said metal body and outwardly through the side of said cylindrical part opposite from said bore for the attachment of a re-charging clip thereto, said flared part being split longitudinally at equidistantly spaced points about the same, metal contact liners on the inner sides of the split portions of said flared part and in electrical contact with the lower end of said metal body, an angled projection on the outer side of each of said liners embedded in said split portions, the inner

faces of said liners being serrated for the effective gripping of a battery terminal, said flared part being exteriorly screw threaded, and a nut engaged with the screw threads of said flared part to compress the split portions to force said liners into tight engagement with the battery terminal.

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