

Aug. 4, 1953

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2,648,051

BATTERY TERMINAL CONNECTOR

Filed Dec. 16, 1950

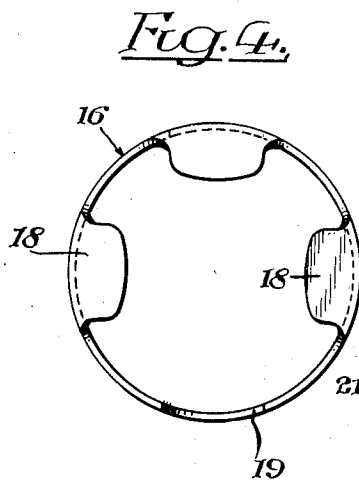
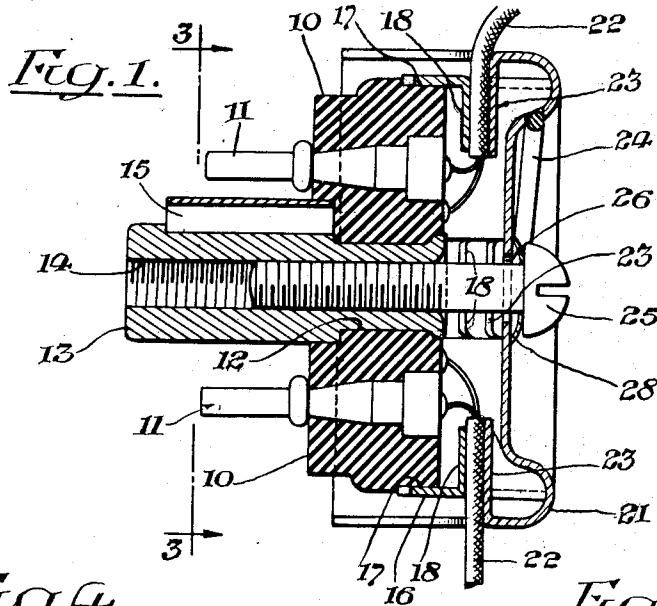


Fig. 6.

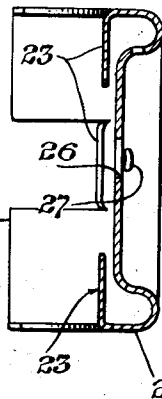


Fig. 2.

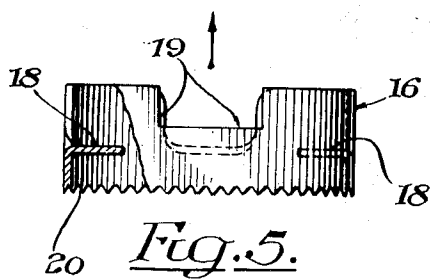
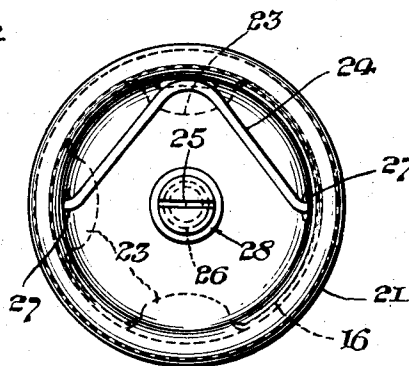
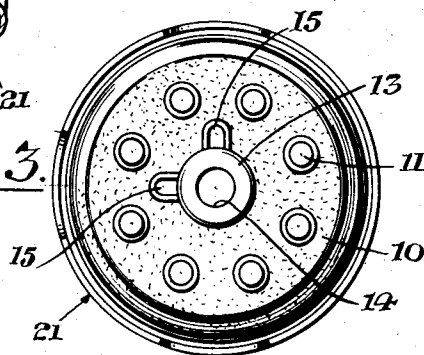


Fig. 3.



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2,648,051

BATTERY TERMINAL CONNECTOR

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Application December 16, 1950, Serial No. 201,170

1 Claim. (Cl. 339—103)

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This invention relates to a connector, specifically to such connectors as are used to join a plurality of wires to the terminals of a battery.

An object of this invention is to provide a connector and battery terminal which will facilitate the wiring of electrical components employing batteries.

Another object of this invention is to provide a battery terminal connector which will lend itself to the use of multiple lead cables.

A further object of this invention is to provide a battery terminal connector which will furnish positive contact and eliminate the accidental displacement of one or more of the wires secured therein.

Another object of this invention is to provide a battery terminal connector which will occupy a minimum amount of space.

The invention consists of the construction, combination and arrangement of parts, as herein illustrated, described and claimed.

In the accompanying drawings, forming a part hereof, is illustrated one form of embodiment of the invention, in which drawings similar reference characters designate corresponding parts, and in which:

Figure 1 is a vertical section of a complete embodiment of the present invention.

Figure 2 is a top plan view of the connector shown in Figure 1.

Figure 3 is a view taken on line 3—3 of Figure 1, looking in the direction indicated by the arrows.

Figure 4 is a top plan view of a ring member, employed in connection with the terminal connector.

Figure 5 is a side elevation of the ring member shown in Figure 4, partially cut away to show the construction.

Figure 6 is a vertical section taken through the shell or clamping member shown in Figure 1.

Referring to the drawings, 10 indicates a base formed of some suitable dielectric plastic material, having one or more contact pins 11 set therein, as shown in Figure 1. The base 10 is centrally bored, as indicated at 12, to receive a sleeve member 13 therein. The sleeve 13 is centrally bored and threaded, as shown at 14, and is provided with keys 15 to prevent rotation of the said sleeve.

A ring member 16, best shown in Figures 4 and 5, is slipped upon the base 10, said base being provided with a reduced portion 17 at the upper end thereof, to receive the said ring member 16.

The ring 16 is substantially circular and is provided with inwardly disposed ears 18, which are

struck from the wall of the ring 16, and bent over at right angles to the said wall. The number of ears 18 employed will of course depend upon the number of leads to be brought into the connector, three being shown in the accompanying drawings for the purpose of illustration. A cable opening 19 may also be provided to facilitate the introduction of the wires within the connector.

The lower edge of the ring member 16 is serrated to provide a plurality of teeth 20, said teeth being provided for the purpose of preventing the ring member 16 from being rotated.

A shell 21, adapted to slip over the ring member 16 and the base 10, is provided for the purpose of securing the wires 22 within the connector following the assembling operation. The shell 21 is provided with a plurality of inwardly bent ears 23, which correspond in size and number to those carried by the ring member 16. The ears 23 are struck from the wall of the shell member and bent so as to overlie those of the ring member 16. A bail 24, best shown in Figure 2, may be provided in the top of the shell member 21, so as to facilitate the removal of the shell 21 from the remainder of the connector.

A preferred embodiment of the bail 24 comprises a bent wire member, the ends of which are received within openings 27, located on opposite sides of the top of the shell member 21. The shell member 21 is further centrally bored, as indicated at 26, to receive a screw 25. The screw 25 is threadably engaged with the internally threaded bore of the sleeve 13. A spring washer 28 is employed beneath the head of the screw 25 to prevent the said screw from loosening.

When it is desired to employ the battery terminal connector, the cable is separated and the leads brought through one or more of the openings in the ring 16 and shell 21, formed by the inwardly disposed ears 18 and 23. The wires are then secured to the tops of the pins 11, as by a spot of solder. Thereafter, the shell member 21 is slipped over the ring 16 so that the wires 22 are firmly grasped between the inwardly disposed ears 18 and 23. The screw 25 may then be inserted through the opening 26 and threaded into the sleeve 13. In this manner the wires 22 may be firmly grasped between the shell and sleeve members, and the entire connector firmly held together.

From the foregoing, it will be seen that a simplified battery terminal connector, capable of easy assembly and disassembly, and having a positive grip for the lead wires, has been provided.

Having thus fully described the invention, what

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is claimed as new and desired to be secured by Letters Patent of the United States, is:

A connector for a plurality of wires comprising, a dielectric base, a plurality of contact pins carried within said base adapted to receive a wire, a conductive ring on one end of the base, said ring having wire admitting openings in the wall thereof and inwardly disposed tabs projecting from the bottom of said openings, a shell member adapted to be slid upon the base so as to overlie the ring member, wire admitting openings in the wall of said shell member, inwardly disposed horizontal tabs adjacent said shell openings and locking means receivable within the base to hold the shell member to the said base.

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