

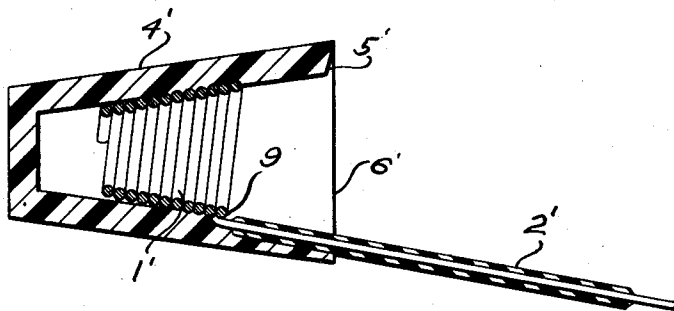
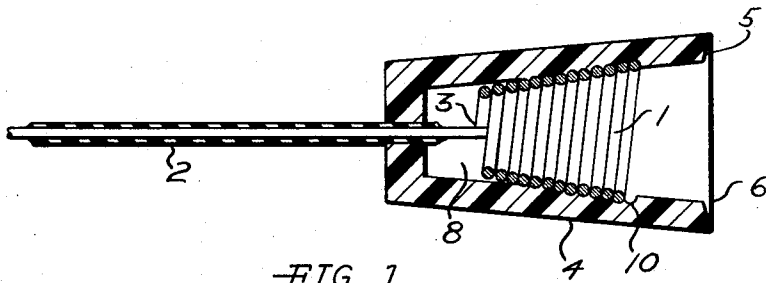
Jan. 12, 1965

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3,165,576

WIRE CONNECTORS WITH FLEXIBLE LEAD

Filed Jan. 25, 1963



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3,165,576

WIRE CONNECTORS WITH FLEXIBLE LEAD

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Filed Jan. 25, 1963, Ser. No. 253,905
3 Claims. (Cl. 174—87)

This invention is in the field of electrical connectors (wire or conductor connectors) and is an improvement on prior connectors used to join stripped ends of wire or wires to a common or single lead.

The accompanying drawings show—FIG. 1 a longitudinal sectional view with a flexible wire lead at the small end. FIG. 2 a longitudinal sectional view of an embodiment with the flexible wire lead at the large end and indicating corresponding components by primes.

The interior is a tapered or conical shaped spring 1, of a material harder than the wires to be connected, with a flexible insulated lead 2, attached to either the small end 3 or the large end 9, as indicated at 2' and of a length suitable for connection to other devices.

The outside jacket 4, is made of an insulating material such as nylon, plastic, etc., with the exterior of a non-slip surface, and may be ribbed, fluted, etc. This jacket shall completely cover the spring leaving the insulated wire lead 2, and the large end 6, exposed. The large end should be flared at 5, for easy insertion and protection of the wires. At the small end of the spring 1 there should be a clearance 8, from the jacket end and side, for expansion when the connector is turned or screwed on the wire or wires. The large end shall have a threaded bore 10, sufficiently long, approximately twenty-five percent of its length, to secure the jacket to the spring.

I claim:

1. An electrical connector adapted to be affixed to the end of electrical conductors comprising,
 - (a) a hollow body member of dielectric material, said

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body member having an open end and an internal bore,

- (b) a conically shaped spring coaxially received within said body member bore, said spring having a large diameter end and a reduced diameter end, said spring large end being disposed adjacent said body member open end,
 - (c) means maintaining said spring within said body member bore, and
 - (d) a flexible electrical lead permanently attached to said spring adjacent an end thereof and extending from said body member.
2. In an electrical connector as in claim 1 wherein,
 - (a) said flexible lead is connected to said spring adjacent the large diameter end thereof and extends from said body member through said open end thereof.
 3. In an electrical connector as in claim 1 wherein,
 - (a) said body member includes a closed end oppositely related to said open end, said spring reduced diameter end being disposed adjacent said body member closed end, and
 - (b) said flexible lead being connected to said reduced diameter end of said spring and extending through said body member closed end.

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