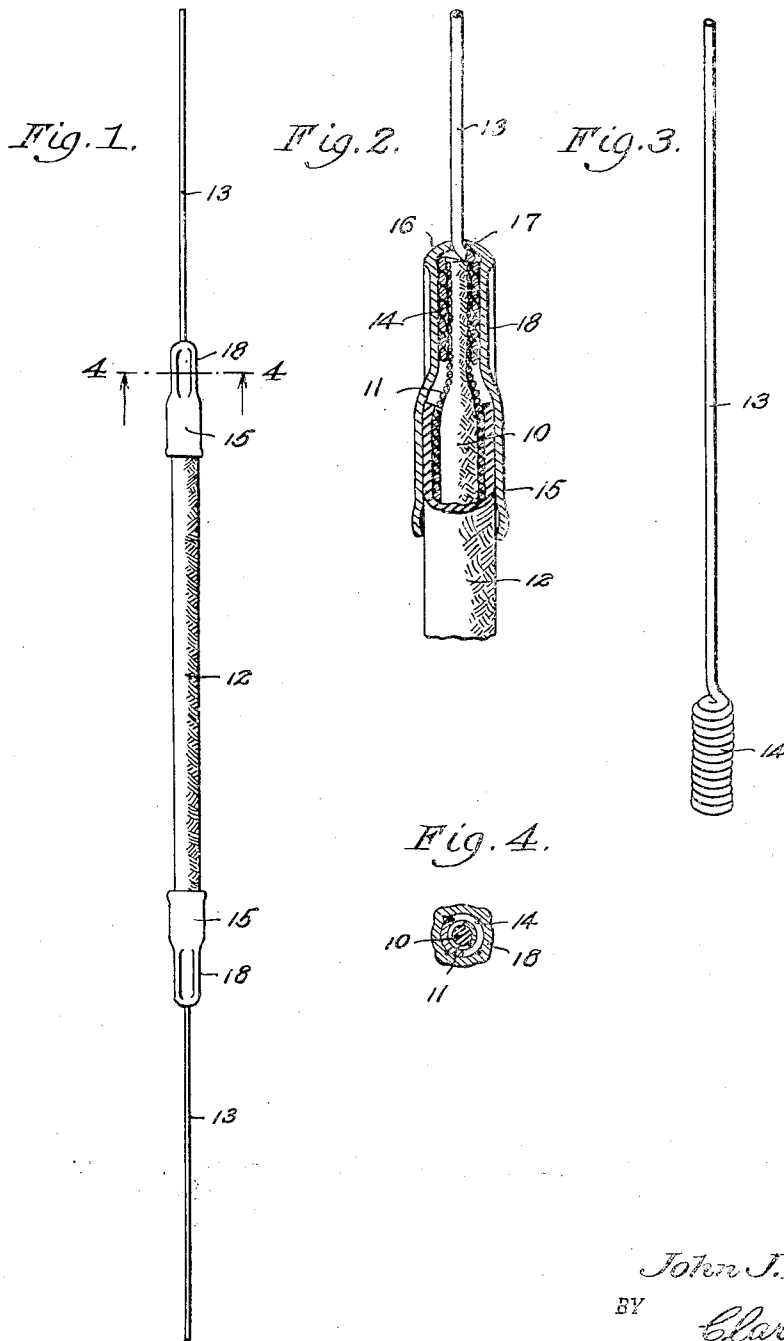


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ELECTRICAL RESISTOR
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ELECTRICAL RESISTOR

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1 Claim. (Cl. 201-63)

This invention relates to electrical resistors and more particularly to resistors such as used in radio receiving apparatus, and the invention concerns a terminal and attaching tip therefor which is in the nature of an improvement upon the resistor set forth in my copending application, Serial No. 710,298, filed February 8, 1934, which has matured into Patent No. 1,987,489, Jan. 8, 1935.

The invention broadly resides in a resistor of the indicated character which includes a flexible terminal wire having a hollow headed inner end telescopically fitted over the end portion of the resistance winding which projects beyond the insulation covering, and a tubular attaching tip having an inner portion surrounding and protecting the end portion of the insulation covering with an outer portion compressed upon the headed inner end of the terminal wire.

More particularly the present invention comprehends a resistor including an improved terminal fashioned from a length of wire having its inner end coiled to provide a series of closely related convolutions which define a hollow head surrounding a resistance winding and its core adjacent its outer end, and a tubular attaching tip which covers the headed inner end of the terminal and is compressed about the same with an aperture in its outer end of less size than the terminal head and through which the terminal wire protrudes so as to effectively secure the attaching tip, the terminal wire, the winding and the core of the winding in assembled relation.

As a further object, the invention provides an electrical resistor of the character set forth which is comparatively simple in its construction and mode of assembly and which is highly efficient for its intended purpose.

With these and other objects in view, the invention is disclosed in more detail in the specification and drawing which sets forth one embodiment, while the appended claim covers variations and modifications which fall within the scope of the invention.

In the drawing:

Fig. 1 is a side view of an electrical resistor constructed in accordance with the invention.

Fig. 2 is an enlarged fragmentary sectional view therethrough.

Fig. 3 is an enlarged perspective view of the improved terminal wire.

Fig. 4 is an enlarged transverse sectional view taken approximately on the line 4-4 of Fig. 1.

Referring to the drawing by characters of reference, 10 designates a core of a resistor which

is made of any suitable non-conducting or insulating material which is preferably compressible. A resistance wire or element 11 is continuously wound about the core and a flexible casing or sheath 12 of insulating material covers or encases the winding or core and terminates in spaced relation to the ends thereof to expose the opposite end portions of the resistance wire or element 11.

A terminal 13 is provided for each end of the resistor which is preferably of a bendable wire and formed with an integral hollow head 14 at its inner end, of a size to snugly fit over the exposed end portion of the resistance wire or element 11 which protrudes beyond the insulating casing or sheath 12. In the instant embodiment, the hollow head 14 is formed by coiling the inner end of the terminal wire 13 to provide a series of closely related convolutions.

The resistor is completed by employing a metallic attaching tip or cap 15 which is of a substantially cup-shape form, and is of a size at its inner end to snugly fit over the insulation casing or sheath 12 and has its outer end 16 formed with an aperture 17 of a size to receive therethrough the terminal wire 13 and which aperture is of less size than the headed end 14.

The hollow headed end 14, which is preferably preformed, is telescopically fitted over the resistance winding 11 and its core 10, and the attaching tip 15 is then applied by slipping the apertured end 16 over the outer end of the terminal wire 13, then positioning the tip over the hollow headed terminal 14 and in surrounding relation to the end portion of the casing or sheath 12. The outer end portion 18 of the attaching tip 15 is preferably of reduced cross sectional size so as to initially snugly fit over the hollow headed inner end 14 of the resistance wire and the portion 18 is then subjected to a radial inward pressure to compress the same about the hollow headed inner end 14 of the resistance wire which in turn compresses the headed end 14, the winding 11 and the core 10, thus embedding the resistance winding 11 in the core 10 and interlocking the headed end 14 and the outer end 18 of the tip so as to effectively secure the parts in assembled relation. Due to this construction and arrangement, the parts are securely bonded together thereby insuring a positive electrical connection directly from the terminal wire 13 to the resistance winding 11 without resorting to the use of solder.

What is claimed is:

An electrical resistor including a core of insulation material, a resistance winding thereon and

insulation covering thereover spaced from the ends of the core, a flexible terminal wire having a pre-formed spirally wound wire end composed of closely adjacent convolutions defining an enlarged hollow head closed at the outer end at the juncture of the same with the terminal wire and telescopically fitted over and enveloping the end portion of the resistance winding and core projecting beyond the insulation covering, and a

tubular attaching tip having an inner portion surrounding and protecting the end portion of the insulation covering, and an outer portion compressed upon the headed inner end of the terminal wire and formed at its outer end with an aperture of less size than the headed end of the terminal wire and with the terminal wire protruding from the aperture.

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