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RADIO FREQUENCY WINDING WITH IRON CORE

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Fig. 1

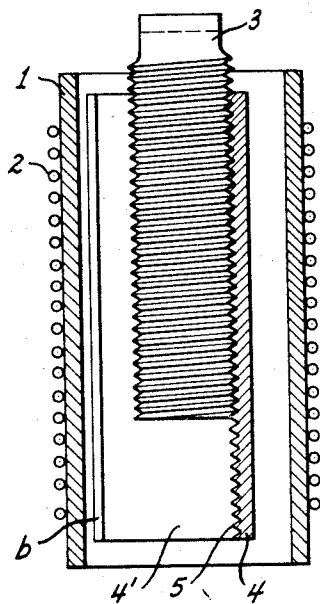


Fig. 3

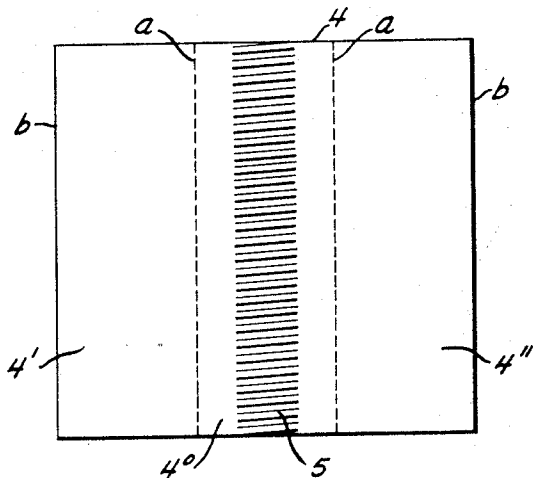
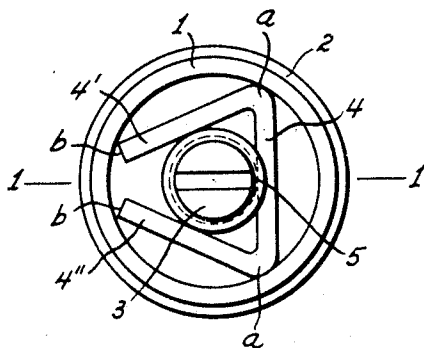


Fig. 2



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RADIO FREQUENCY WINDING WITH IRON CORE

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4 Claims. (Cl. 74-424.8)

The present invention relates to a device for the mounting of a controllable core in electrical windings and particularly in radio frequency windings with iron core, making it possible to obtain in a completely satisfactory manner the various requirements necessary, namely, ease of operation, progressive control and stability of the core in the position into which it is brought for effecting the control.

According to the present invention, inside the hollow support upon which the winding is formed are arranged flexible surfaces arranged as a prism between which the core is located and whereof at least one has grooves forming a grip for the thread of the core, while the others apply to the core and exert thereon the necessary pressure for keeping it in the position into which it is brought at the control performance. Preferably the several surfaces are made from a single sheet folded in order to form the various sides of a prism.

In the attached drawing is shown as exemplified embodiment a form of execution of the present invention. Fig. 1 is an axial section of a winding with core mounted with the device which forms the object of the present invention, drawn following the line I—I of Fig. 2. Fig. 2 is a cross section of the winding. Fig. 3 represents the development of the sheet.

In the shown example, 1 indicates the insulating tube upon which the winding 2 is located, 3 indicates the controllable core mounted inside tube 1 with a device according to the invention.

Said device is performed in the most simple way by means of a small sheet 4 of suitable flexible material, for example, a cardboard which is folded in form of a prism along the lines a—a in order to form three surfaces 4', 4'', 4''' in one of which a number of oblique grooves are made corresponding to a sector of female thread. The small sheet 4 folded in the described manner is longitudinally introduced into tube 1 as shown in Figs. 1 and 2, so that the edges a—a and the free edges b apply against the inner surface of tube 1 along the longitudinal thereof. Edges b are not connected to each other, so that they remain completely free in regard to each other.

When a threaded core 3 of suitable diameter is introduced and turned between surfaces 4', 4'', 4''', the core itself is screwed in the grooves 5, and can thus be progressively introduced into tube 1 and brought into the desired control position in which it is maintained by the pressure exerted on it by the various surfaces of the small sheet 4.

The reciprocal action of the core and sheet is

sufficient to maintain the core in the desired position, and also to keep the sheet 4 immovable within tube 1.

The so obtained arrangement is extremely stable, simple, and economical, and corresponds completely to the requirements.

Instead of a sheet folded in the described manner, the gripping surfaces for the core can be made of different strips inserted in tube 1 in order to delimit therein the prismatic surface destined to receive the core. Eventually the various surfaces of the sheet or the various strips can be waved or curved towards the interior, in order to constitute therein the zones of contact or grip for the core.

The sheet 4 of the strips which replace it can be made of any suitable material, and preferably of cardboard or equivalent material.

I claim:

1. In a holder for an adjustable screw-threaded core member, a sleeve, a resilient channel member mounted within said sleeve, said channel member and sleeve reacting upon one another so that the channel member is held snugly within the sleeve, the sides of said channel member forming a hollow prism within which the core is located, at least one internal face of one of the sides of said prism having formed thereon means cooperating with the screw threads of the core member, one of said other sides of the prism being arranged to exert upon the core member sufficient pressure to keep the screw threads in said core member in mesh with said cooperating means.

2. An arrangement as described in the next preceding claim wherein said resilient channel member is formed of a single sheet of material folded so as to form the sides of a prism.

3. In a holder for an adjustable screw-threaded core member, a sleeve, a resilient member mounted within the sleeve and comprising a sheet of material folded in the form of a prism having substantially triangular bases, said resilient member coacting with the sleeve so that it is held snugly within said sleeve, oblique grooves formed on at least a portion of the inside surface of one of the sides of said resilient member, said grooves being arranged so as to cooperate with the thread on the core member, said core member being adapted to be adjusted to different positions within said prism.

4. In a holder for an adjustable screw-threaded core member, a sleeve, a U-shaped resilient channel member mounted within the sleeve and so that its two free sides are forced toward

one another by the sleeve member which reacts on said free side so as to hold the channel member snugly within the sleeve, said channel member forming a prismatic hollow for receiving the screw-threaded core member, at least one of the internal surfaces of said channel member having formed thereon a sector of screw threads which

correspond to the threads on said core member, the other two sides of the channel member acting to maintain the threads on the core member in mesh with the threads on the channel member.

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