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ELECTRICAL TRANSFORMER AND INDUCTANCE COIL

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Fig. 1.

Fig. 2.

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This invention relates to electrical transformer and inductance coils and is particularly applicable to such coils when used in radio receiving sets such as is shown in the application of Stuart W. Seeley and Theodore J. Scofield, filed October 5, 1929, Serial No. 397,491.

An object of the invention is to construct coil mountings at low cost which will permit of the winding of the coils thereon with minimum labor, anchoring of the terminals of a coil and the securing of the coil form to the base of the tuner element with which it functions.

Other objects will appear in the following description, reference being had to the drawings in which:

Fig. 1 is an elevation of the invention applied to a transformer coil attached to the base of the tuner element such as disclosed in the above mentioned application.

Fig. 2 is a bottom view of the arrangement shown in Fig. 1.

The transformer is wound on a fibre board cylinder or tube 1 attached to the base 2 of the tuner element. This base has a lug 3 die-cast thereon and a screw 4 passes through a hole in the cylinder and is threaded into lug 3. A lock washer 5 may be used to prevent the screw from coming loose.

To furnish securing means for the ends of the coil, holes 6, 7, are punched or otherwise formed in the tube 1 and preferably at the same operation slots 8 and 9 are cut from these holes to the end of the tube. It is preferable to have the outer edges of slots 8 tangential with the circumferences of the holes 6 and 7, though this is not absolutely necessary.

To attach the other terminal of the wire I punch or otherwise form holes 10, 11, with a U-shaped slot 12 joining the two holes, the outer sides of the slot being preferably tangential with the circumference of each of the holes.

A wire, preferably a fine enamel wire, is wound on the fibre tubing 1 until the correct value of inductance is obtained. One terminal of the cord is then wrapped a number of times around the tabs 13 to anchor it in position and then is lead through the "spaghetti" insulation 14 to furnish terminal 15 for connection to the other parts of the circuit not shown. The other end of the coil is then slipped under the tabs 16 and wound around such tabs to anchor this terminal. The wire is then passed through the "spaghetti" insulation 17 to furnish the other terminal 18 of the coil.

The foregoing construction is of low cost and the coil may be quickly wound on the tube and secured to the tabs 13 and 16. These coils may then be stored or passed by appropriate conveyor belts for assembly with other apparatus without there being any danger of the coils unwinding. Such coils can be much more readily secured to the tabs than by prior methods consisting of threading the wires a number of times through holes in the fibre tube.

If desired, a plurality of these hole and slot combinations may be punched at various points along the length of the fibre tube so that coils of various lengths may be wound thereon with the assurance that tab members will be located somewhere near the end of the coil.

Having described my invention, what I claim is:

1. An electromagnetic coil consisting of an insulation tube having a notched tongue formed therein, a coil of wire wound on said tube and having one end wrapped around said tongue and in the notch thereof.

2. An electromagnetic coil consisting of an insulation tube having two spaced holes and slots of less width than the diameter of said holes joined together and entering the holes at the outside periphery thereof to form a notched tongue, and a coil of wire wound on said tube having one end wrapped around said tongue in the notch thereof.

In testimony whereof, I have signed my name to this specification this 22nd day of October, 1929.

THEODORE JOHNSON SCOFIELD.