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INDUCTANCE COIL AND CONDENSER ASSEMBLY

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Fig. 1

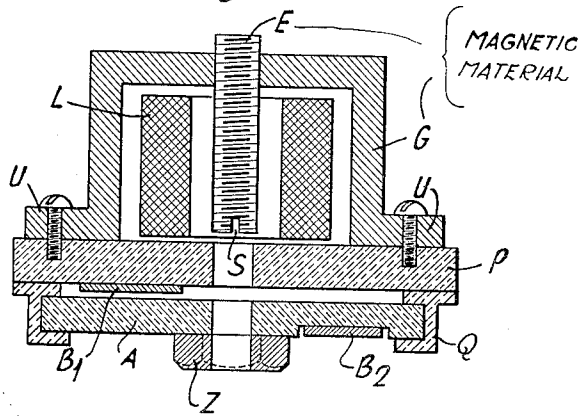
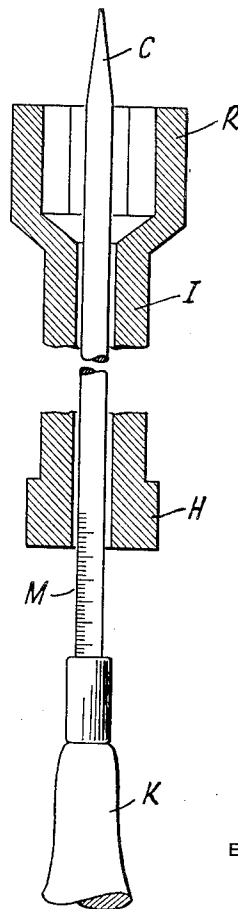


Fig. 2



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INDUCTANCE COIL AND CONDENSER
ASSEMBLY

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2 Claims. (Cl. 250—16)

It is known in the prior to combine iron-cored coils in receiver apparatus with trimming or aligning condensers of the rotary type, the latter being directly attached to the former.

5 According to this invention, the iron-cored coil and the trimming condenser are mounted in a co-axial way, more particularly on opposite sides of an apertured or perforated insulation plate or slab in such a way that they may be adjusted
10 from one and the same side or end.

Particular advantages of the invention consist of favorable utilization of space resulting in reduced dimensions for the entire assembly and reduction of the length of connections to a mini-
15 mum with incidental saving of soldering; moreover, the setting of the coil and of the condenser is accomplishable from one and the same end.

An exemplified embodiment of the invention is shown in Fig. 1. Above the plate or slab P made
20 of a suitable ceramic material is disposed the casing or can G for the coil L, the can consisting of iron. Introduced in the top hole of the casing is the iron-core E, the latter at its opposite end being provided with a slot S adapted to intro-
25 duce therein the working edge of a screw driver. Below the said plate P is mounted the trimming or aligning condenser in such a way that its rotating spindle coincides with the axis of the iron core E. This aligning condenser comprises
30 the coat B₁ placed directly or, if desired, recessed or countersunk, on the insulator plate P, and the revoluble ceramic plate or disk A bearing upon its under face the second coat B₂ recessed therein. A suitable bearing means Q is provided for the
35 plate or disk A and is preferably mounted on the under side of the plate P. The two coats consist of semi-circles, and plate A has two stops which are so disposed that in one end or terminal position the coats come to be superposed in registry relationship, while in the other end position
40 displaced an angle of 180 degrees, coat B₂ is positioned above the portion of plate P having no coat.

The revoluble disk has a polygonal co-axial pin
45 or journal Z which serves to rotate the disk A by the aid of a wrench. The said journal Z, the disk A as well as the plate P are provided with a bore hole through which a screw driver may be passed whose working edge is introduced in the slot S
50 so that the iron-core may be caused to shift axially by screw motion.

One suitable adjusting device for the described arrangement is shown in Fig. 2. The same consists of a cylinder I being built in the form of
55 a wrench R at one end of a size so as to fit the

polygonal journal or stud Z. At its opposite end the cylinder is provided with a milled or knurled rim H which serves for convenient turning of the cylinder and thus of the mobile (rotor) condenser member. Through the bore hole of the cylinder is passed a screw driver C which serves
5 to shift the iron core E. At its end opposite the edge of same is fitted with a head piece K and adjoining the latter is a graduated scale M.

Setting is effected in such a way that simul-
10 taneously the screw driver C is passed through the hole of the rotary condenser and the plate so as to allow of the introduction of the edge into the slit S, while the wrench R is fitted on top of the stud Z. As a result the two settings may be
15 effected by one and the same operation. The size of the axial shift of the iron-core may be read on the scale M.

The bent-away ends or flanges U of the casing or can G may be fastened on top of the plate P,
20 say, by means of screws. The plate P moreover is suitably fitted with contacts or terminals by way of which connection is established with other parts of the set. The connections between the coil and the trimming condenser, however, could
25 also be insured directly through the plate or disk P.

I claim:

1. In an inductance coil and condenser assembly for signalling apparatus and the like, a disk
30 of insulation material, an opening provided on said disk along the axis thereof, an inductance coil positioned on one side of the disk co-axially therewith, a core for said coil mounted so that its axis is in substantial alignment with the axis
35 of the coil, said core being arranged so as to be adjustable along the axis of the coil to provide for varying the inductance value of the coil, a second disk of insulation material having an opening along its axis, said second disk being
40 mounted for rotation about its axis and so that the axis of the first disk and the axis of the second disk coincide, a condenser having a stator electrode mounted on said first disk and a rotor
45 electrode mounted on said rotatable disk whereby the capacity value of the condenser may be varied by rotating the second disk about its axis with respect to the first disk, the openings in the first and second disks being of sufficient size to permit
50 a core adjusting device to be inserted there-through.

2. In an inductance coil and condenser assembly a disk having a central opening, an inductance coil provided with an adjustable core said coil being mounted on one side of said disk and ar- 55

ranged so that the adjustable core registers with said opening, a container composed of magnetic material for said coil said core being adjustably mounted on said container, a variable condenser of the rotary type mounted on the other side of the disk and co-axially with said core said condenser being provided with an opening registering with the opening in the disk whereby the core may be adjusted from the last named side of said disk.

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