MRL A.C. OSCILLATOR - DIRECT TYPE DP-42

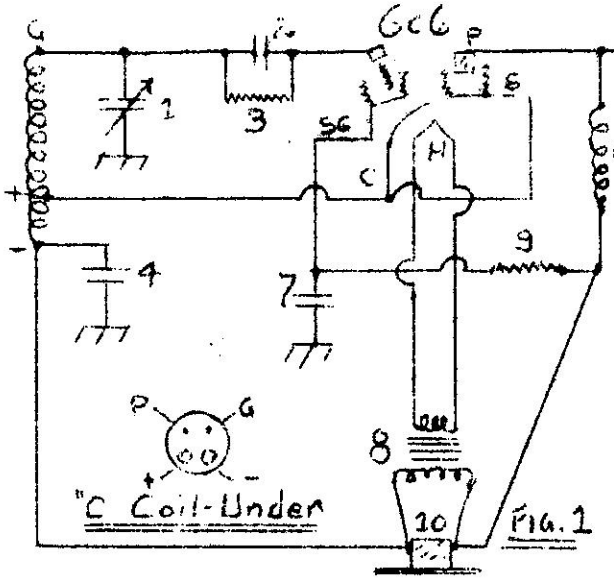

Fig. 1

LIST OF PARTS

1 Vernier dial (1)
1 .00014 cond. (1)
1 MRL CH-2½ choke (6)
(SET) 1 4-pr. wafer (coil)
1 6-pr. " (6C6)
1 75,000 res. lw. (9)
1 Coil shield (coil)
1 Tube shield (6C6) 1 6C6 tube
1 50,000 res. lw. (3) 1 knob (15)
1 .0001 mica cond. (2)
2 .01 tubular cond. (4), (7)
1 .002 mica cond. (11) Cabinet.
2 Phone tip jacks (A), (G).
1 6.3 v. Fil. Transf'r. (8)
1 110 v. conv. outlet (10)
1 Par. cord & plugs (110)
1 200 or 400 ohm pot. (Attenuator) (12)
1 Set MRL Type "C" coils 15-200m, BC, LW.

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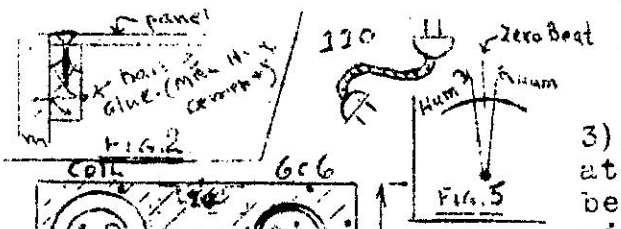

Fig. 2 Fig. 5

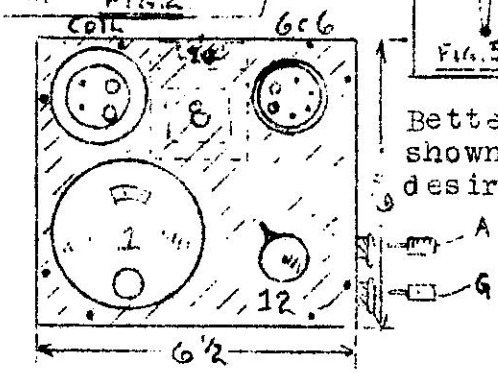

Fig. 3

Lay out parts as shown ¼"-1" scale (Fig. 3). Best to make good connections - insulated, well as 110 is running "loose." We believe the Fan at this stage understands wiring, etc. and can read schematic dia. (1). Better to make wooden box so panel sets down in as shown (Fig. 2). Stain & shellac. Use wooden cover if desired, hinge or snap-on. Rubber feet if desired.

This is the best direct-type Oscillator we have used. You may get harmonics but not lots of them as on HF Osc. Oscillates well from 20 or less up to 1000 or more meters. Produces a good "zero" beat (Fig. 5) which is silent point. This is the calibration point. Be sure to calibrate Oscillator or sets only when all the shields are in place, or readings will be NG.

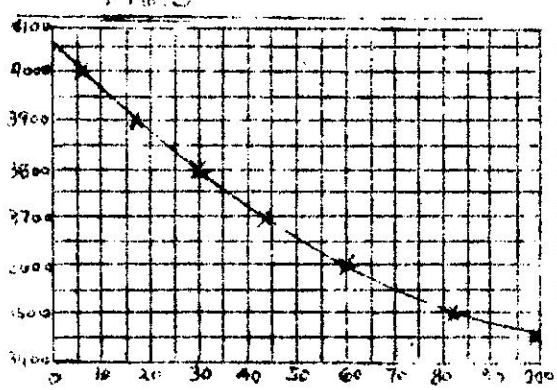

Fig. 4

CALIBRATING OSCILLATOR. Hook Osc. to 110 line. Tune set to some distant station, and look freq. up in call book. Without changing tuning or volume - disconnect Ant. and connect (A) of Osc. on Ant. post of set. Be sure (G) is also on set from Osc. Plug in coil in Osc. that should cover band set is tuned. Turn Osc. dial till loud hum is heard in speaker or phones of set. Adjust Attenuator (12) till you get a good 'smooth' zero beat. This is your calibration point. Divide a piece of graph paper in 100 pts. on 1 side for dial readings. On the left place frequency pts. as determined by position on dial as shown (Fig. 4). Make several pts. by tuning in different distant stations. Each time, change Ant. post of set to Outside Ant. and then to Oscillator when calibrating. With a French Curve draw a line connecting pts. You can now see that if you want to find 3750 KC it is 38 on your Osc. dial. Tune your set till it "hits" the hum, change Ant. posts and your station is easily found on set. If using a SLF cond. your line will be straight, but is curved with most midget conds. If U want to use a larger cond. (.0004-5) you will get harmonics on some coils - that is, they are weaker than the same freq. as 1st, 2nd, 3rd Harmonic etc. It's lots of fun, so go to it. MODERN RADIO LABORATORIES.