RK17

~~R119~~

TYPE 46

DRYOUT CIRCUIT

The dryout circuit is a closed oscillatory circuit. It is used to dry off the deck and aerial insulators when the damping is so high, due to spray etc., that the L/F valve transmitter cannot maintain aerial oscillations (see Admiralty Handbook of W/T (1931) paragraph 633). The circuit is similar to that used for Type 47 (see page ~~296~~). RL12

The transmitter 3N L/F is used for the dryout circuit (see figure i.) with the exception that the grid and filament taps are connected to the dryout coil (26) instead of the aerial coil (11). The H.T. and filament supplies are therefore the same as for transmitter 3N L/F (see figures b. and e.)

The dryout circuit consists of a 0.25 jar condenser (25), adjustable 6000 mic coil (26), 250 mic fine tuning coil (27) and the primary of the aerial ammeter transformer (29), connected in series to earth.

The transmit-dryout switch (19) is a 3-pole two-way magnetically operated switch (see figures i. and v.). The grid and filament of the transmitter 3N L/F are connected to 2 poles and the dryout aerial tap to the third. When the switch is operated (made to the dryout position) the grid and filament of the transmitter and the dryout aerial tap are connected by adjustable taps to the dryout coil (26), the latter via the dryout condenser (25). The closed oscillatory circuit then consists of the dryout circuit and that part of the main aerial circuit below the point on the aerial coil (11) from which the dryout tap is taken (see figure g.).

Tuning. Adjust the transmitter 3N L/F for the desired frequency and measure this frequency accurately by wavemeter. Disconnect the aerial by putting the aerial switch (9) to any position other than L/F and make the transmit-dryout switch (19) to "dryout" (see figure i.). Connect the aerial dryout tap to the aerial coil (11); the best position is generally found to be on or near the grid tapping of that coil.

Tune the dryout circuit by adjusting the upper and lower taps on the dryout coil (26) and the fine tuning coil (27) to the above frequency and then adjust the grid and filament taps on the coil (26) for maximum efficiency as indicated in the ammeter (30). After adjusting the grid and filament taps, check the frequency by wavemeter and, if necessary, finally correct the tuning on the fine tuning coil (27).

Put the aerial switch (9) to L/F and press the signalling key; current should still show in the ammeter (30). On full voltage it should only be necessary to press the key for a few seconds to enable aerial current to be obtained on switching over the transmit-dryout switch (19) to "transmit".

When using the dryout circuit the aerial dryout tap may, for some reason, be disconnected, and a current reading still shown in the ammeter (30). An explanation of this is given on page ~~296~~. RL12

EQUIVALENT CIRCUIT

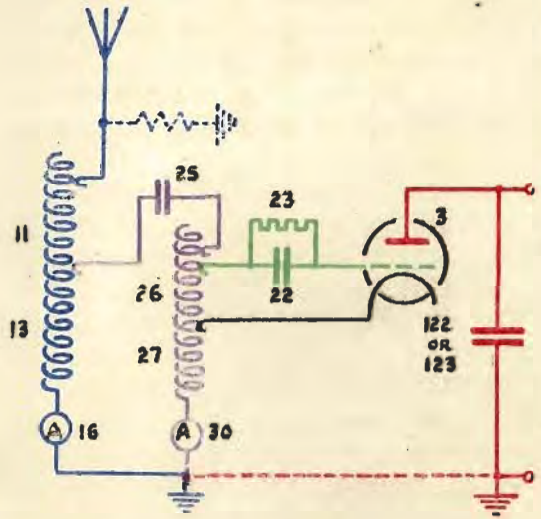

FIG. 9.

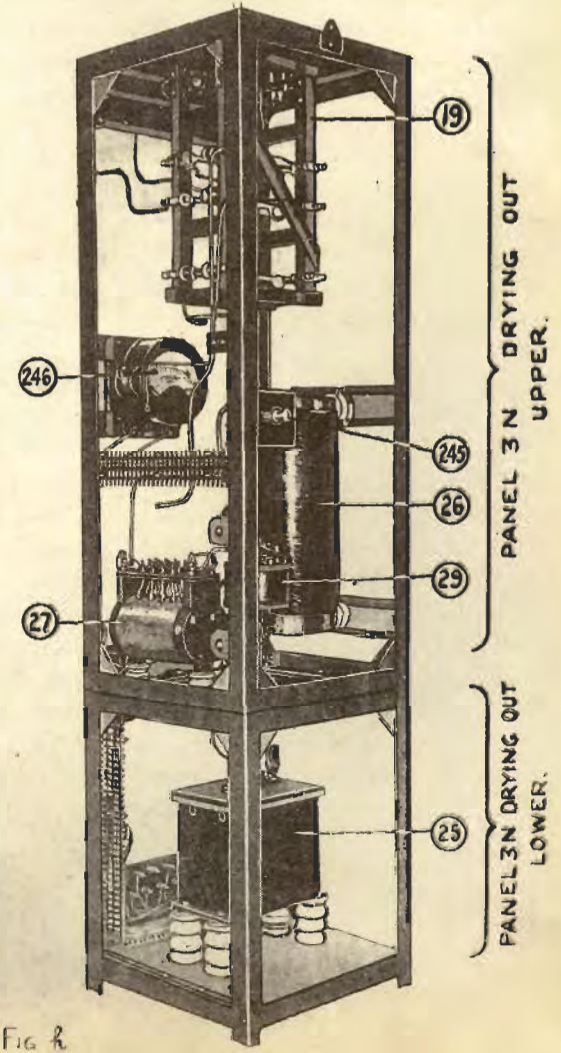

FIG 8