

BOARD 2G SUPPLY  
5 KW UPPER.

BOARD 2G SUPPLY  
D.C. UPPER

BOARD 2G DISTRIBUTING  
UPPER

BOARD 2G SUPPLY  
A.C. UPPER

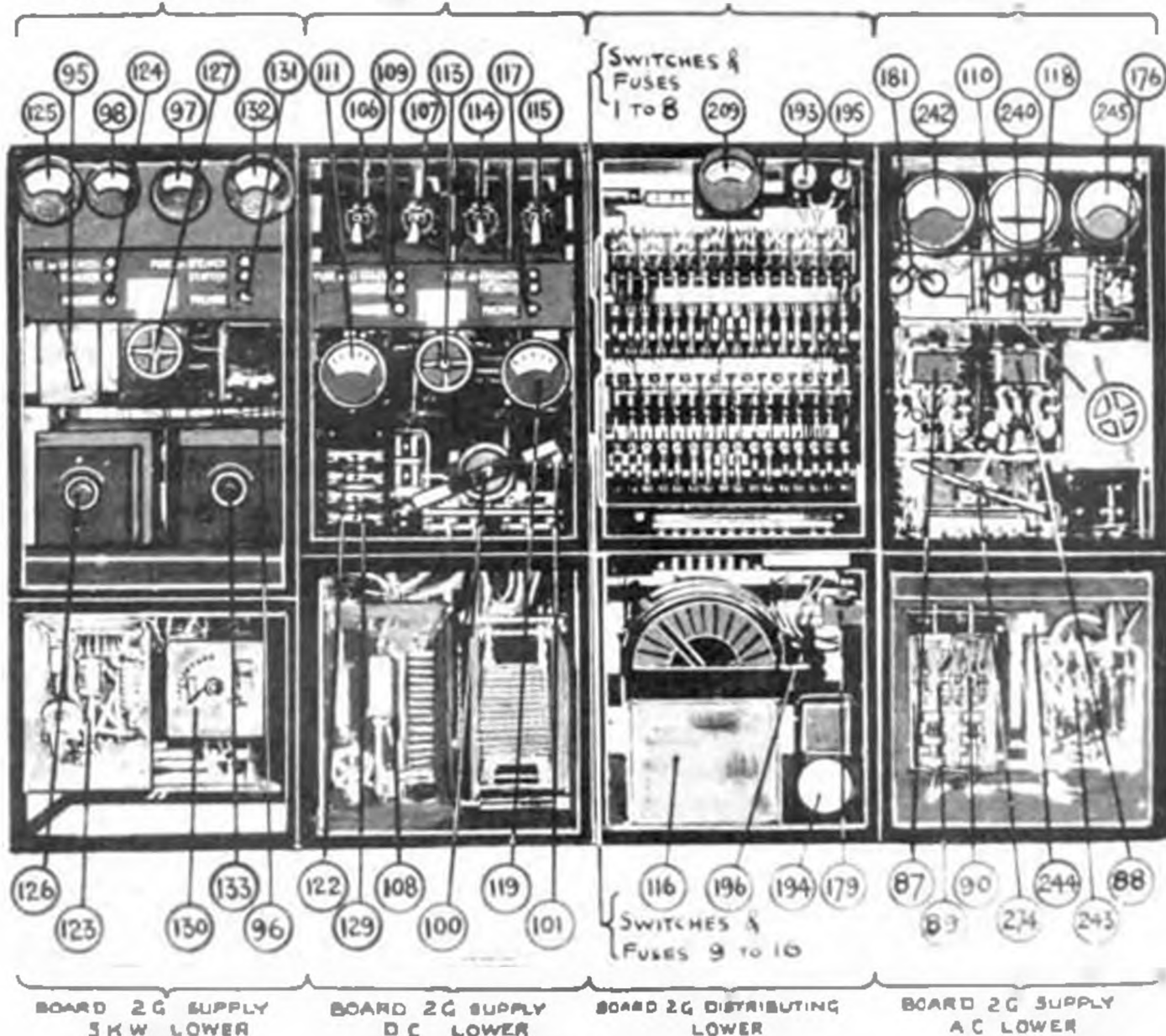
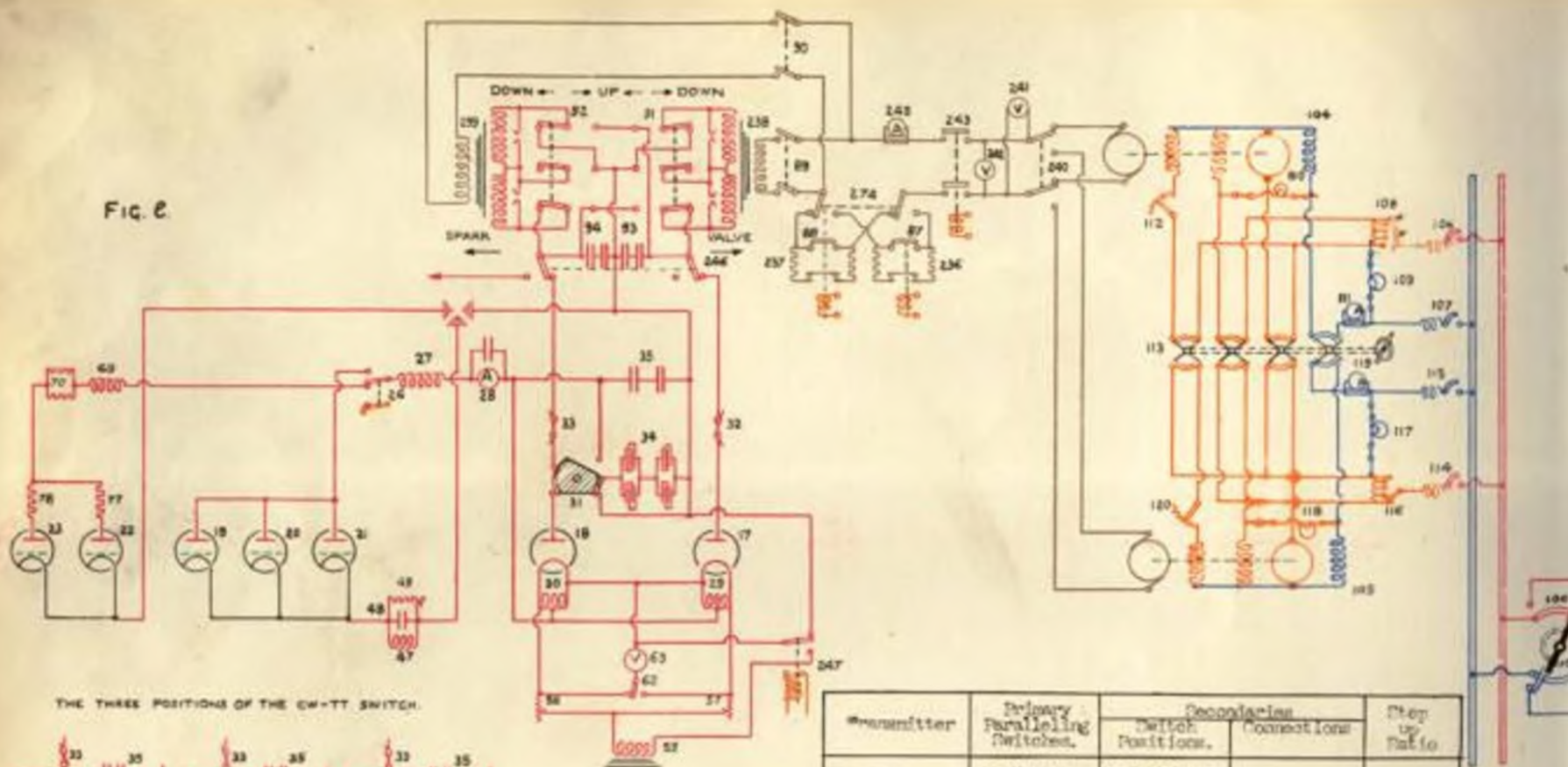
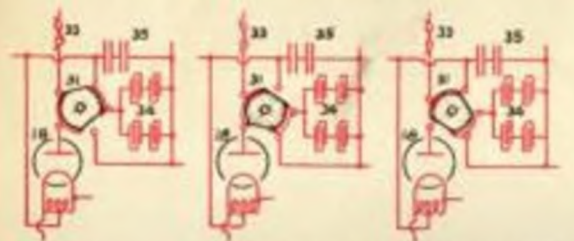


FIG. D.

FIG. 2



THE THREE POSITIONS OF THE CW-TT SWITCH.

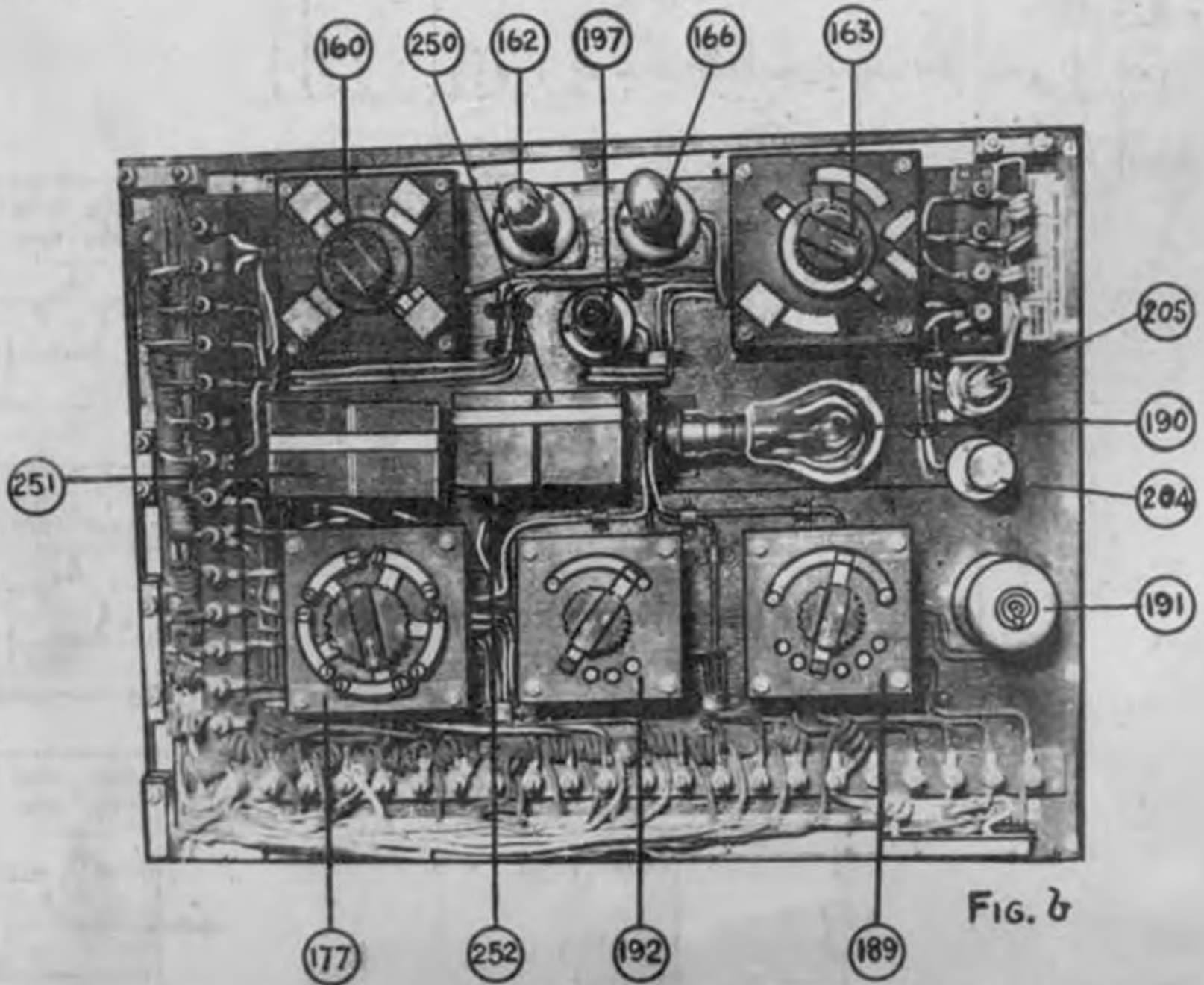


CW. TT DOUBLE PULSE. TT SINGLE PULSE.

The secondary switch of the transformer not in use must always be in the control (or "OFF") position.

Transmitter	Primary Paralleling Switch.	Secondaries Connections		Step up Ratio
		Switch Position.	Connections	
71	One only made	Transformer in use "UP"	One only	1 - 40
	Both made	Both "UP"	PARALLEL	1 - 30
30	One only made	Transformer in use "UP"	One only	1 - 40
	Both made	Both "UP"	PARALLEL	1 - 40

# BOARD 26 CONTROLLING.





# TRANSMITTER 3G, L/F.

(60) (43) (68)

FIG. R.

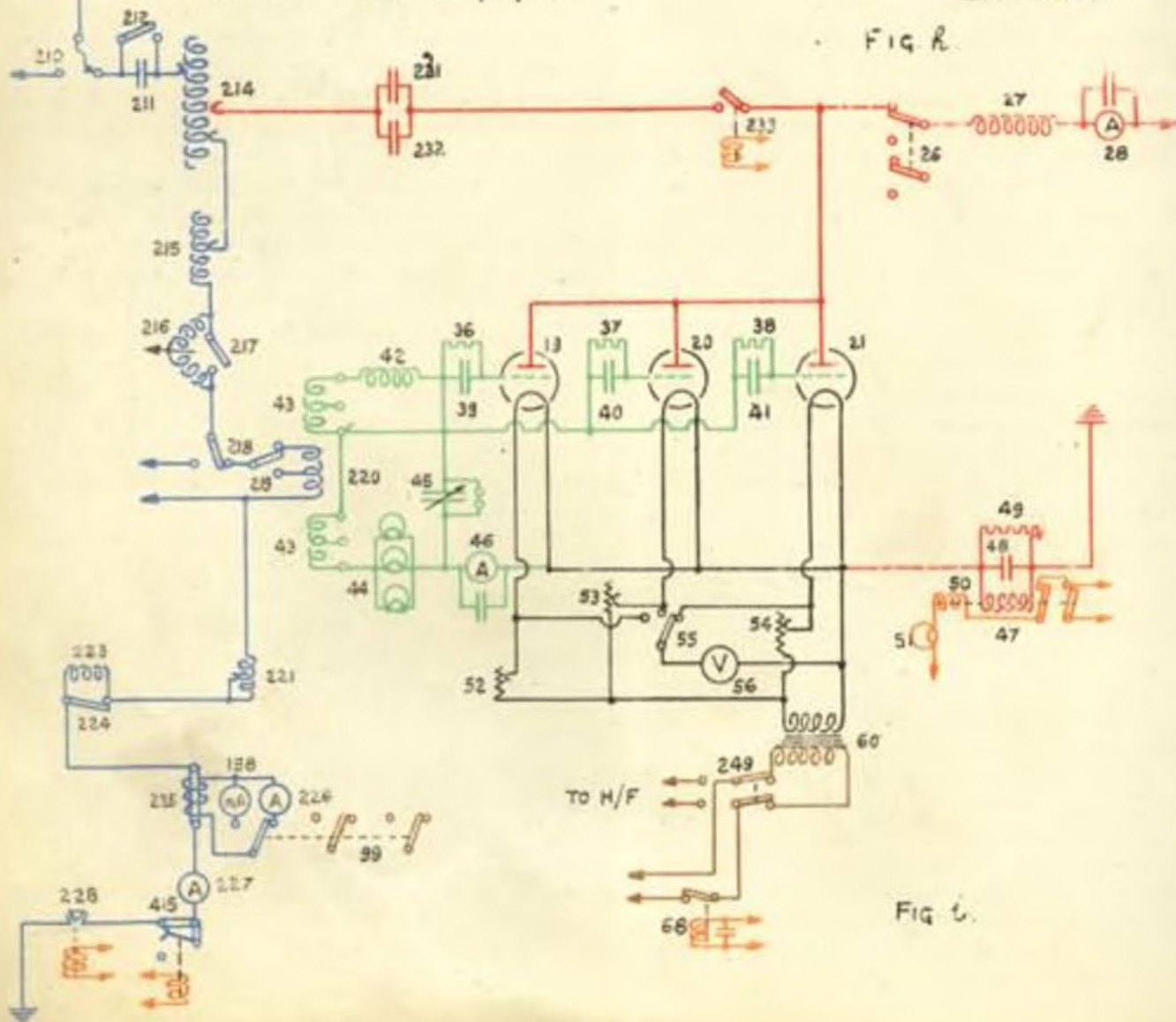


FIG. L.

Ken  
R36

# TYPE 36S

## TRANSMITTER 3G, LOW POWER.

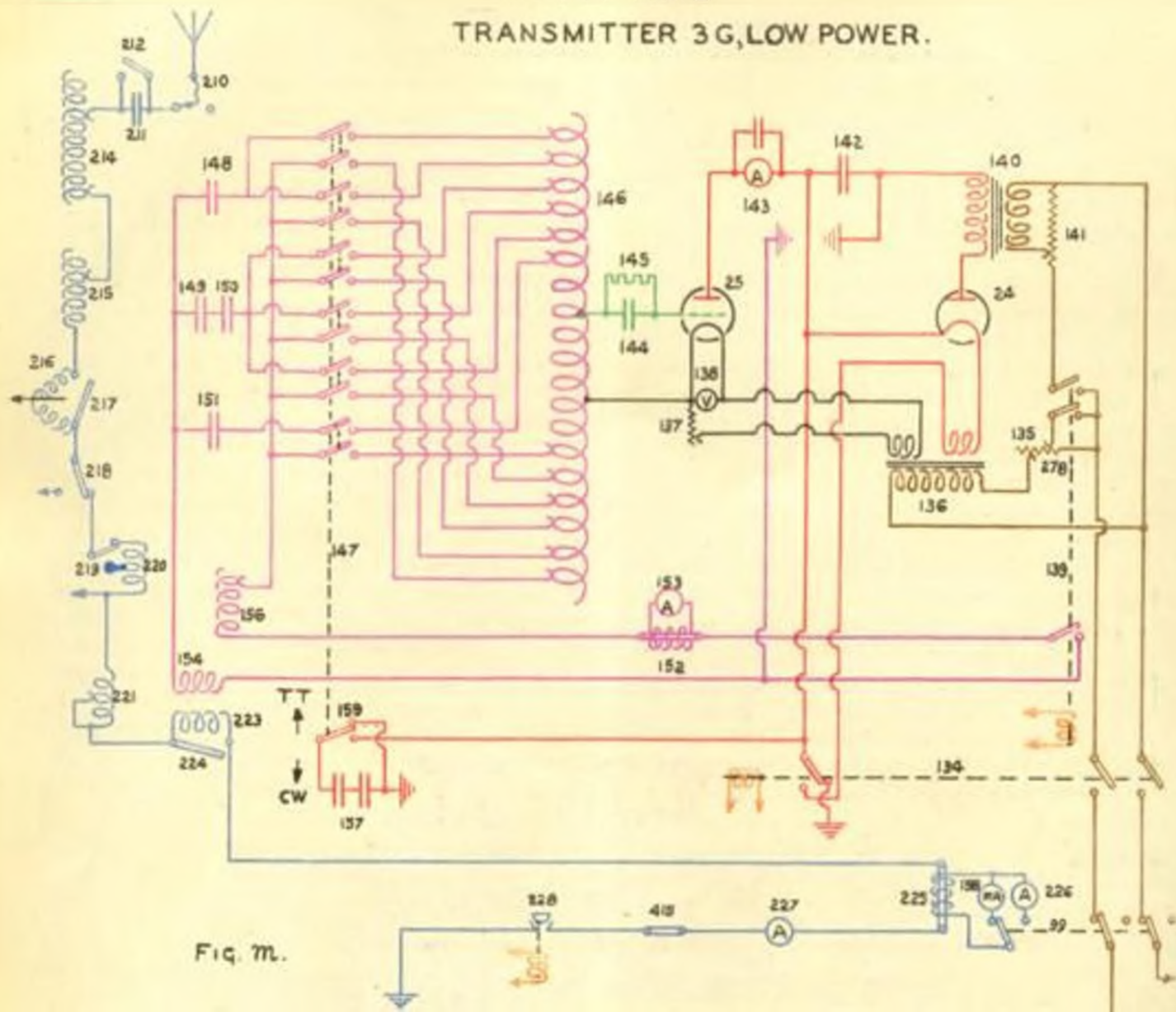


Fig. M.

# EQUIVALENT CIRCUITS.

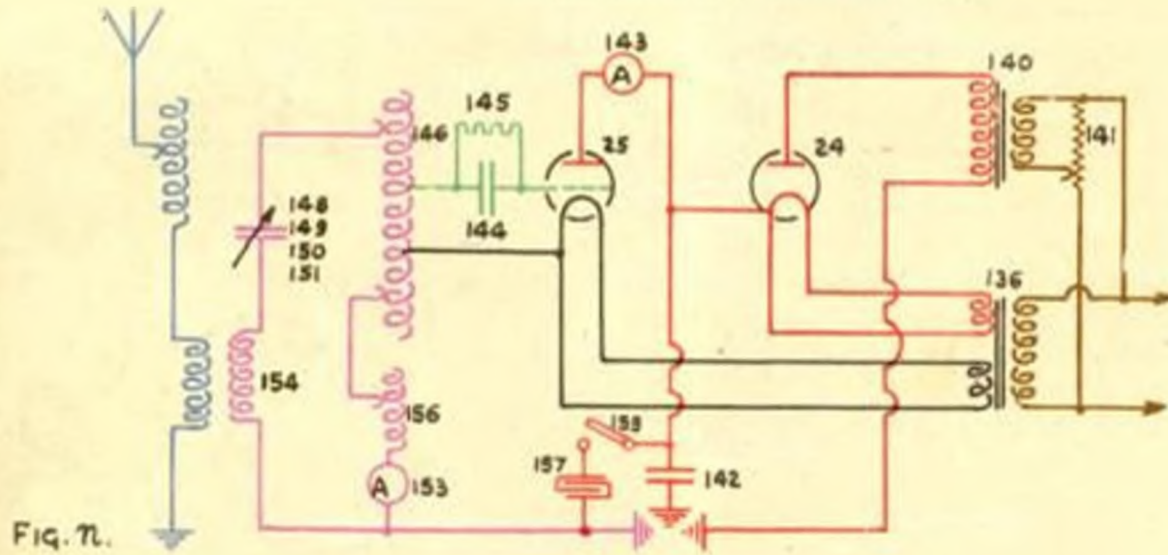
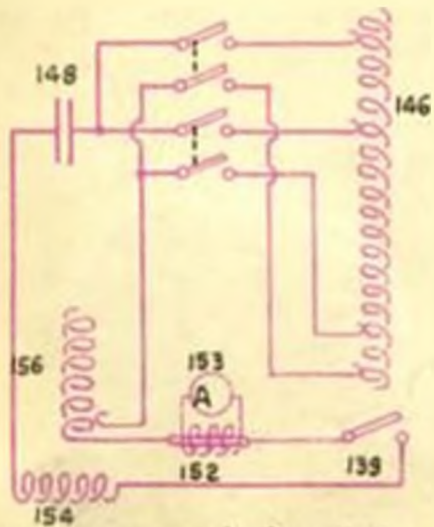
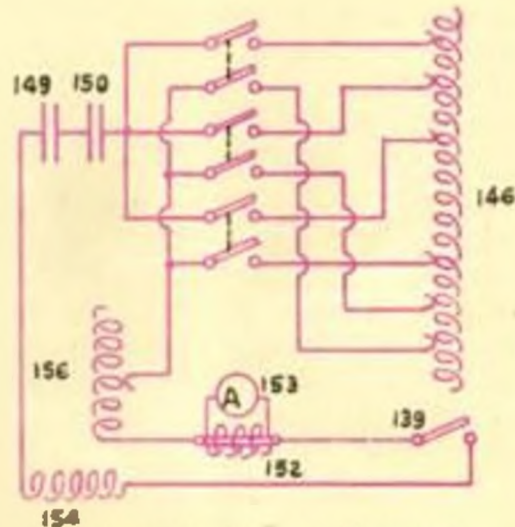


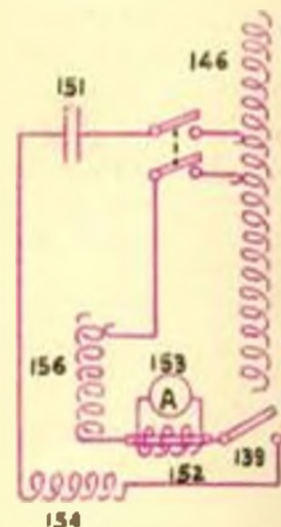
Fig. 7.



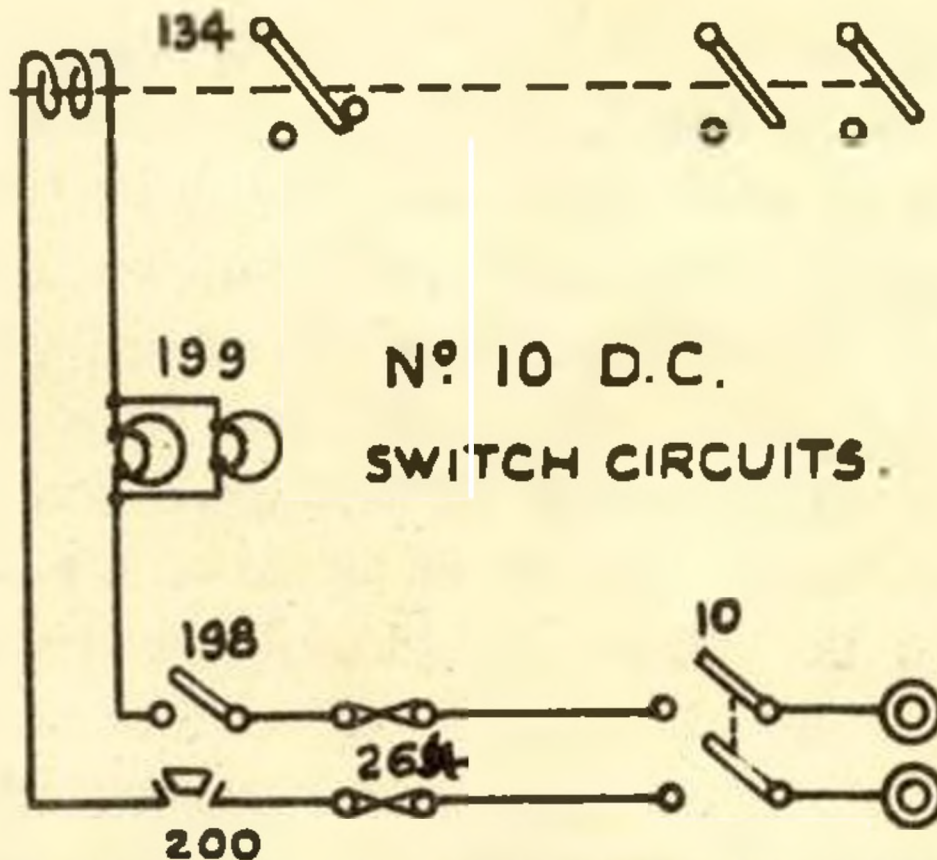
WAVECHANGE SW. (147) POS<sup>N</sup> EBF.  
CONDENSER (148) 5 JARS  
FREQUENCY RANGE 60-100 Mc/S



WAVECHANGE SW. (147) POS<sup>N</sup> B.C.BD  
CONDENSERS (149)(150) [TWO 5 JARS IN SERIES] 2.5 JARS  
FREQUENCY RANGE 100-270 Mc/S.



WAVECHANGE SW. (147) POS<sup>N</sup> A.  
CONDENSER (151) 1 JAR  
FREQUENCY RANGE 270-500 Mc/S



No 10 DC Switch above is the "SAFE TO TRANSMIT SWITCH". This is printed on the covering lid for the switch, and when required [man aloft working for example], switch 10 above is broken, then the lid is shut and locked.



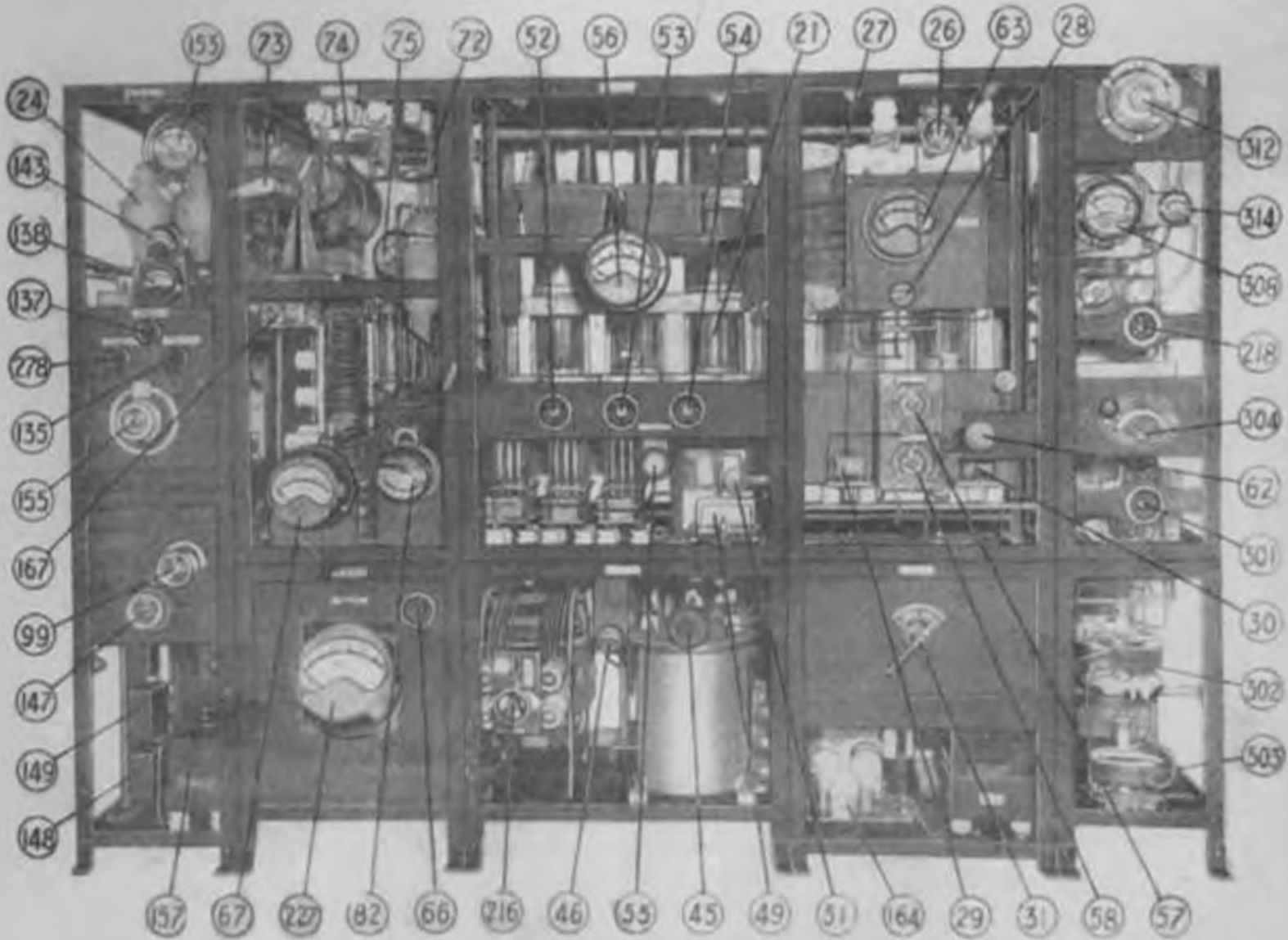
PANEL 3GL  
UPPER

PANEL 3G SHORT  
WAVE, UPPER

PANEL 3G TRANSMITTING  
UPPER

PANEL 3G RECTIFYING  
UPPER

PANEL 3G  
SPARK, UPPER.



PANEL 3GL  
LOWER

PANEL 3G SHORT  
WAVE, LOWER

PANEL 3G TRANSMITTING  
LOWER

PANEL 3G RECTIFYING  
LOWER

PANEL 3G  
SPARK, LOWER

FIG. 5

# Part of 20kW Power Unit

## TYPE 36 S

RE21

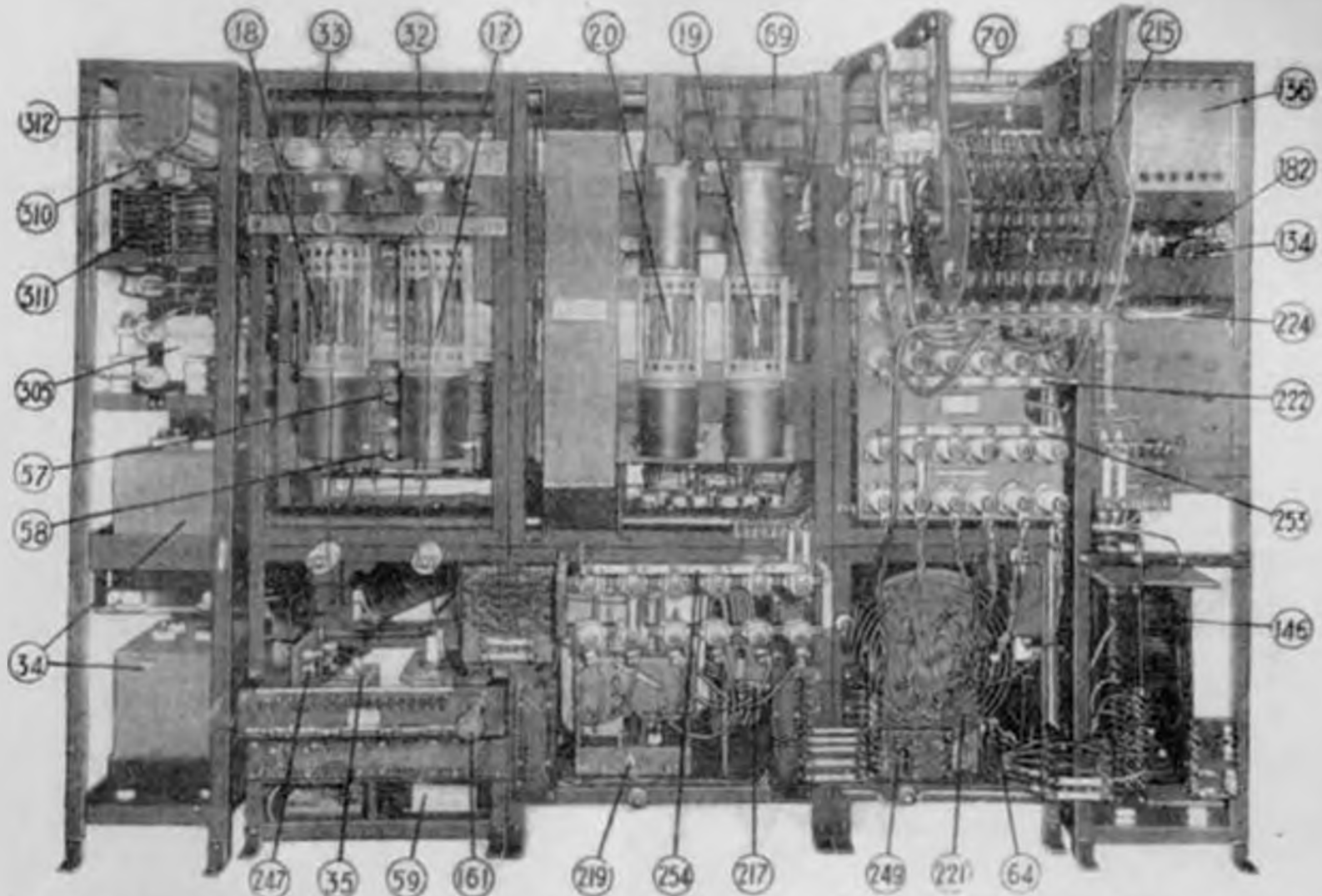
PANEL 3G  
SPARK, UPPER

PANEL 3G RECTIFYING,  
UPPER

PANEL 3G TRANSMITTING,  
UPPER

PANEL 3G SHORT  
WAVE, UPPER.

PANEL 3GL  
UPPER



PANEL 3G  
SPARK LOWER

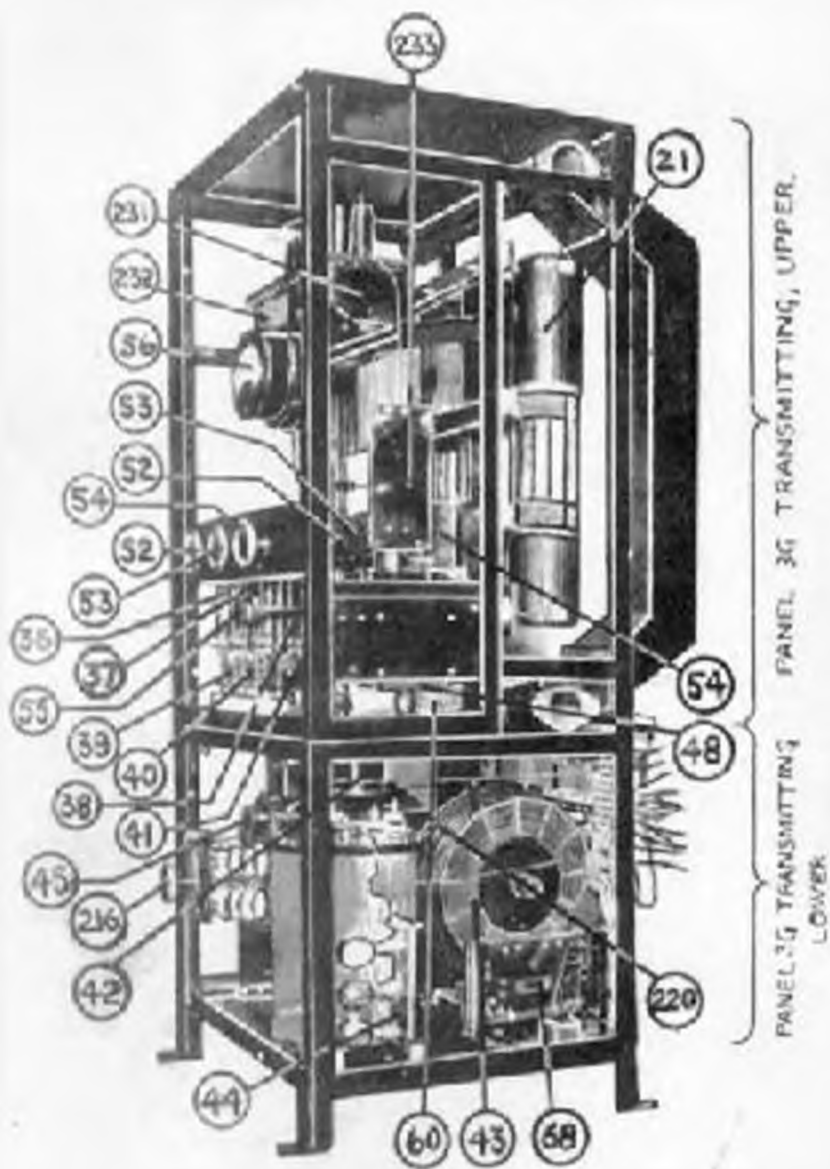
PANEL 3G RECTIFYING,  
LOWER

PANEL 3G TRANSMITTING,  
LOWER

PANEL 3G SHORT  
WAVE, LOWER

PANEL 3GL  
LOWER.

# TRANSMITTER 3G, L/F.



PANEL 3G TRANSMITTING, UPPER.  
 PANEL 3G TRANSMITTING, LOWER.

PANEL 3GL, UPPER.

PANEL 3GL, LOWER.

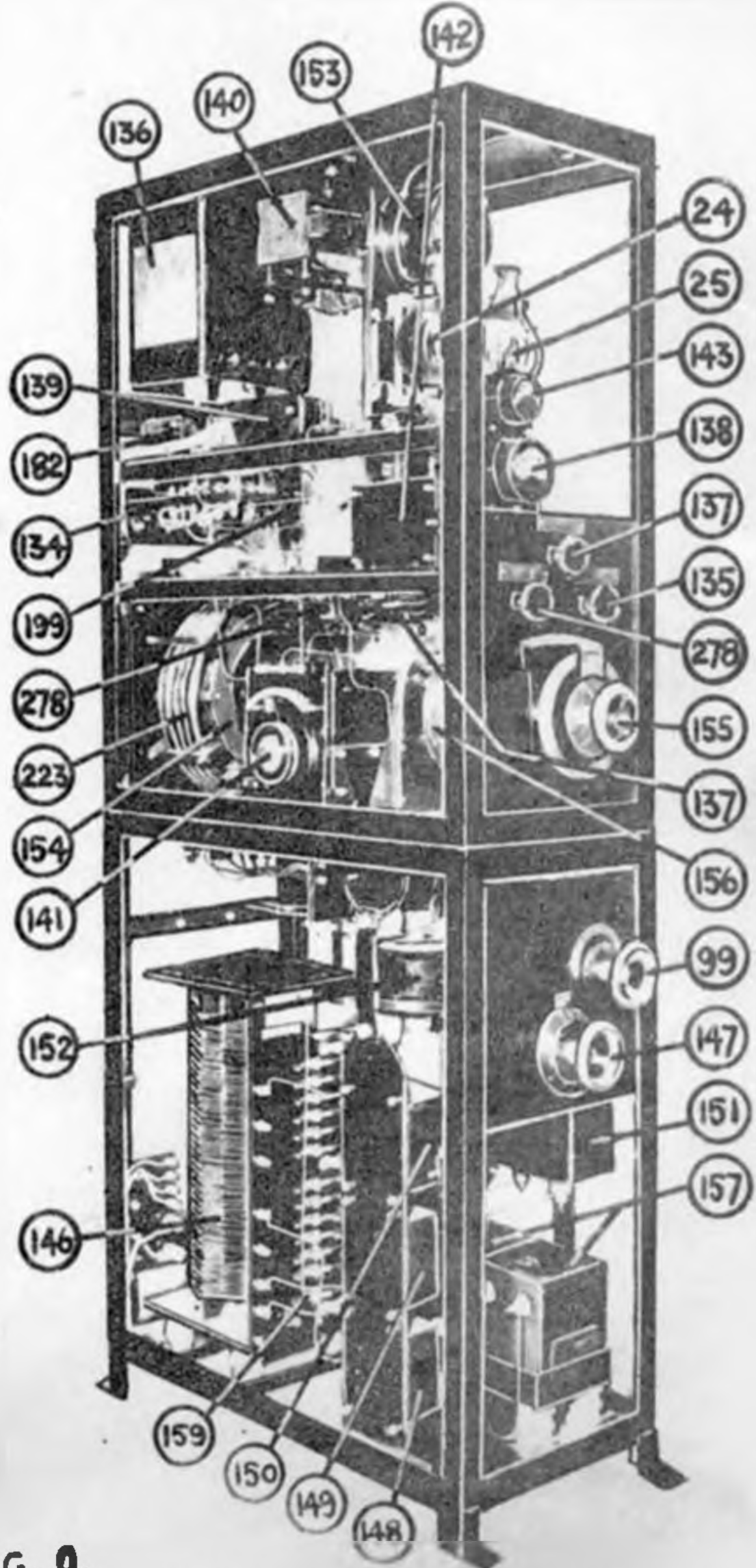


FIG. 0.

Transmitter 3G Low Power

# Part of 20kW Power Unit

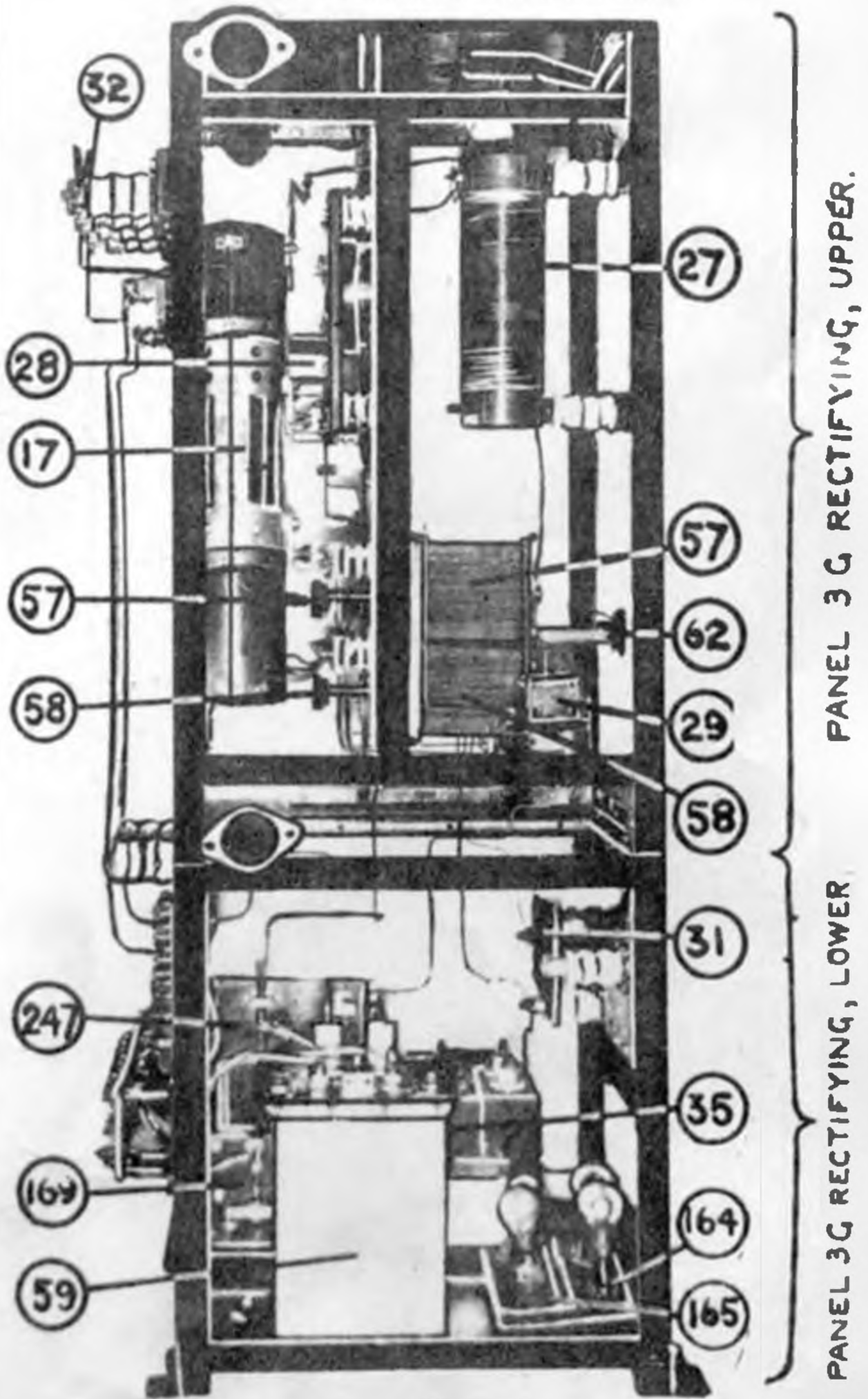


FIG. f.

# AERIAL CIRCUITS.

The aerial circuits and methods of connecting the transmitters to the aerial are shown in figure W. Separate single-wire aeriels are connected to the cabinet switch (180) for the receiving sets and the main aerial can be used for reception if desired. The aerial can be connected to the I/F or H/F sets by a flexible load (210).

When using the main aerial for H/F reception it is necessary to disconnect the I/F aerial circuit from the cabinet switch (180) in order to prevent a large capacity to earth, through the L/F aerial circuit, being left connected to the H/F receiver. This is done by the H/F - L/F change over link (229).

In the L/F position the link (229) connects the operating switch (223) to the cabinet switch (180) for normal L/F reception and disconnects the cabinet switch (180) from the H/F send-receive switch (80).

In the H/F position the link (229) connects the H/F send-receive switch (80) to the cabinet switch (180) for H/F reception and disconnects the operating switch (223) from the cabinet switch (180).

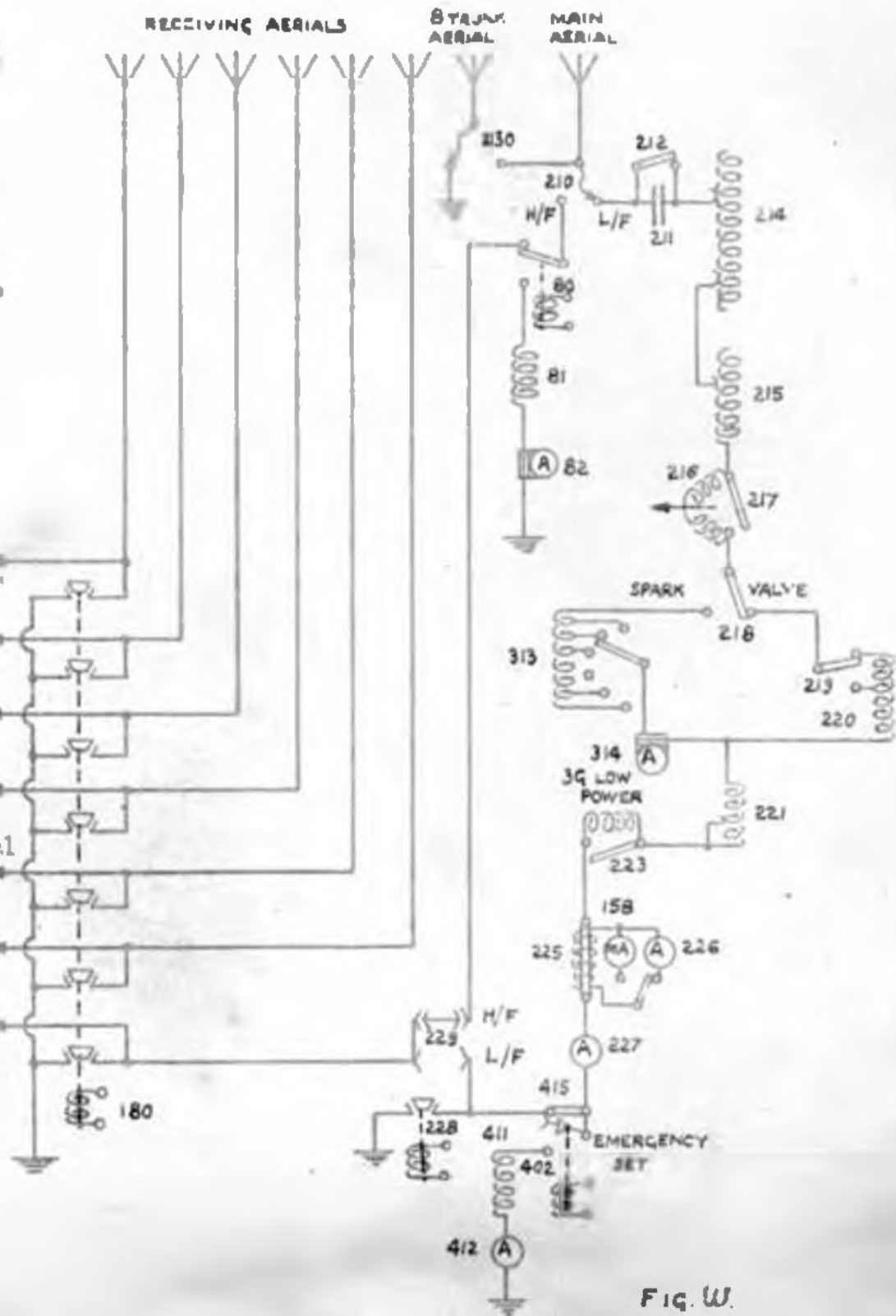


FIG. W.

TYPE 36 S  
20 VOLT WARNING CIRCUITS

RE 19  
R-43

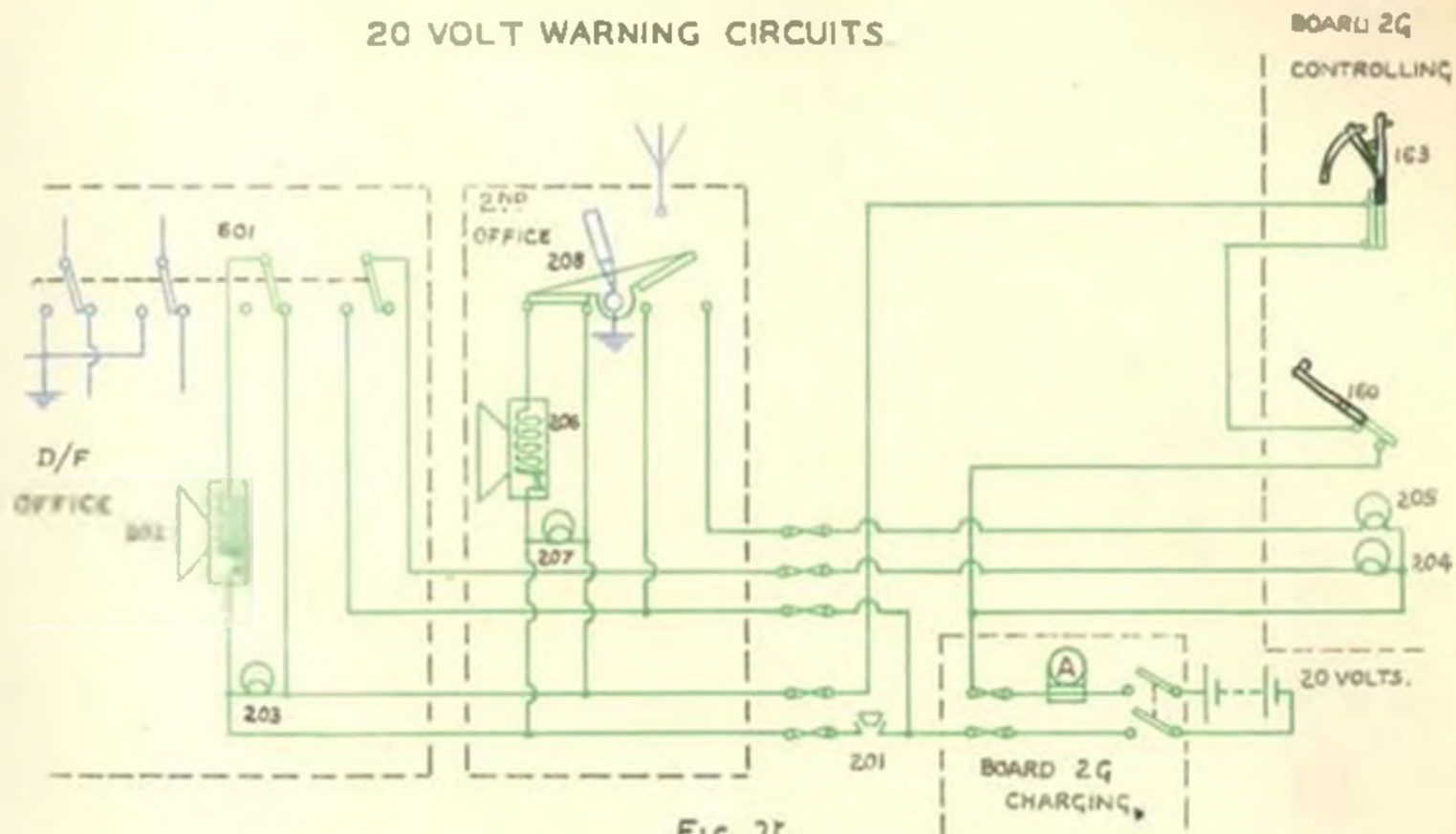


Fig. 2.

## TYPE 36 S

## 20 VOLT WARNING CIRCUIT.

In order to protect the receiving gear in the D/F and Second offices when the main set is transmitting a warning circuit is fitted which consists of loud sounding buzzers (202) (208) and lamps (203) (207) operated by the 20 volt supply from the Board 23 Charging.

The D/F and Second offices are fitted with aerial safety switches (201) and (208) for earthing the aerials when the main set is transmitting or the office is not in use. In the "receive" position the switches (201) (208) are connected as shown in figure v, and complete the 20 volt supply to the loud sounding buzzers (202) (208). When the operator in the main office makes the filament control switch (183) to transmit an auxiliary contact on the switch (183) makes the 20 volt supply to the buzzers (202) (208) and warning lamps (203) (207) in the D/F and Second offices respectively. The warning lamps (203) (207) will burn as long as the filament control switch (183) is made but the circuit to the buzzers (202) (208) is broken by the respective aerial safety switches (201) (208) when the operators earth their aerials. In addition to breaking the circuit to the buzzers (202) (208) the aerial safety switches complete the supply to reply lamps (204) and (205) fitted on the Board 20 Controlling. The reply lamps (204) (205) indicate to the operator in the main H/T office that the D/F and Second office aerials are earthed and it is safe to transmit. A gate switch contact (201) breaks the supply to the buzzers (202) (208) and warning lamps (203) (207) when the gate is opened. An additional contact on the H/T send-receive control switch (130) breaks the supply to the buzzers (202) (208) and warning lamps (203) (207) when the H/T send-receive switch is made to "send" as it is not necessary to earth the D/F and Second office aerials when transmitting on the F/P set.

It should be noted that the reply lamps (204) (205) will light when the aerials in the D/F and Second offices are earthed by the aerial safety switches (201) (208) irrespective of the position of the H/T send-receive control switch (130), the filament control switch (183) and gate switch contact (201), thus affording the main office a permanent indication whenever the D/F or Second office aerials are earthed.



D.C. AUXILIARY CIRCUITS. (CONTINUED).

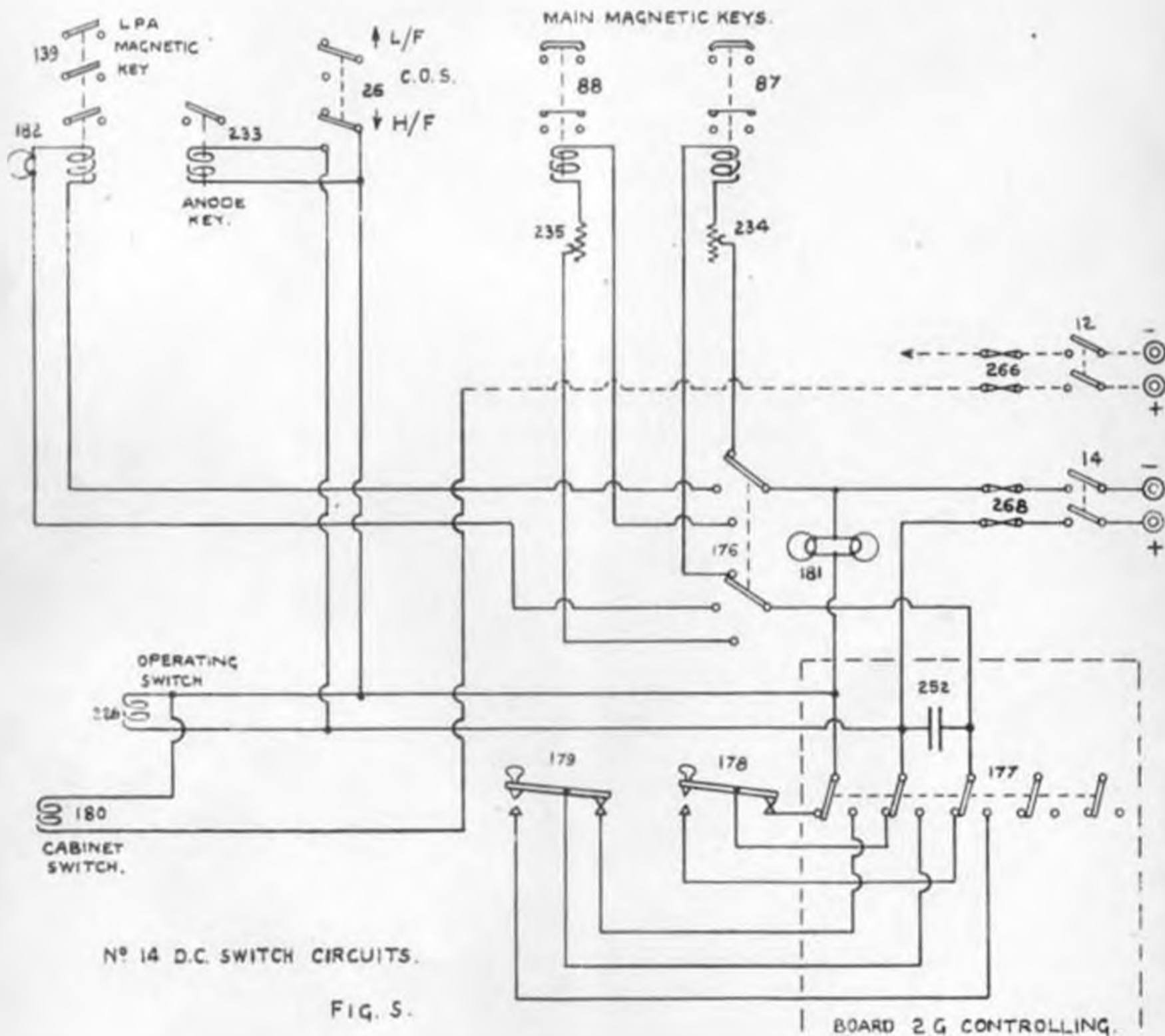
D.C. Switch (14) Key circuit. (See figure a.)

D.C. switch (14) and fuses (268) supply the master key circuits for operating the magnetic key (87) (88) of the main set or low power set (130), the operating switch (228) cabinet switch (180) and anode key (233). Three contacts of the master key C.O.S. (177) connect the operating circuits to the master key required. The magnetic keys are connected in circuit by the magnetic key C.O.S. (178). When using 'O' id. supply care must be taken that both change over switches (178) and (179) are to the same key. (See figure x.)

To avoid earthing the receiving aeriels by the cabinet switch (180) and operating switch (228) when transmitting on the H/F set and also, to save working the anode key (233) which is not in the H/F circuit, an additional contact on the H.T. C.O.S. (26) short circuits the back contacts of the master key when the H.T. C.O.S. (26) is switched to H/F.

When transmitting on the low power set, which uses the main aerial circuit, it is necessary for the operating switch (228) to function and earth the transmitting aerial, but the cabinet switch (180) is not required to operate as this earths all the receiving bays in the C.R.R. For this reason the positive lead from the bobbin of the cabinet switch (180) is connected to the positive of the blower motors circuit. The cabinet switch (180) will therefore only operate when the circuit for the blower motors is made, by closing the D.C. switch (14).

Care should be taken that the H.T. C.O.S. (26) is not left in the H/F position when using the low power set as the operating switch will not function and the transmitting aerial will be connected to earth through the receiving instruments. (See figure w.).



No 14 D.C. SWITCH CIRCUITS.

FIG. 5.

BOARD 2 G CONTROLLING.