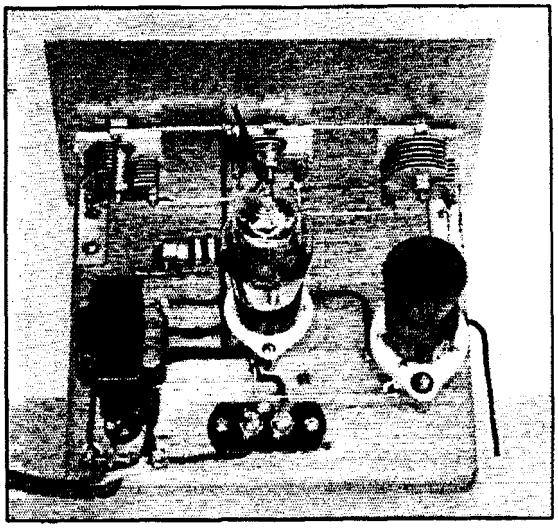
nections just as they appear from above, and so it is not necessary to consult a tube data sheet for the various lug connections.

A cable of four conductors was used for heater and plate power connections with this set, and to fasten the cable to the baseboard, a four-lug terminal strip is screwed to the board at the rear edge. If desired, this lug strip could be replaced by a small clamp over the cable with one screw on each side, thus leaving the cable ends free to be connected directly to the proper points in the circuit. For the headphone tips, a terminal strip of two screws is provided, mounted also at the rear edge of the base. For this purpose a pair of tip jacks, or a combination of jack and phone plug could be used, if more readily available.

In the diagram, the antenna post of the receiver is shown coupled to the grid end of the coil, L_1. Actually, it is not necessary to provide an antenna binding post; this purpose is served by simply twisting the antenna lead-in wire with a piece of insulated wire approximately 6 inches long, the end of which is connected to the grid lug of the coil socket. The insulated twisted wires form a coupling condenser, the capacity of which may be increased by increasing the number of times the wires are twisted around, thus increasing the length of wire in the twisted pair. For an antenna of approximately 50 feet, two turns should be sufficient.



VIEW OF THE RECEIVER SHOWING WIRING AND PLACEMENT OF PARTS

This view clearly shows the simplicity of the assembly.

L_1			
	Total No. Turns	*Total Winding Length*	*No. Turns Between Tap and Ground*
160-meter band....	110	Turns close-wound	12
80-meter band....	45	Turns close-wound	6
40-meter band....	14	Turns close-wound	2
20-meter band....	7	¾ inch	2
10-meter band....	5	¾ inch	2

All coils are wound of No. 30 d.s.c. wire on I.C.A. ribbed 5-prong forms, 1¼-inch diameter by 2-inch winding length.

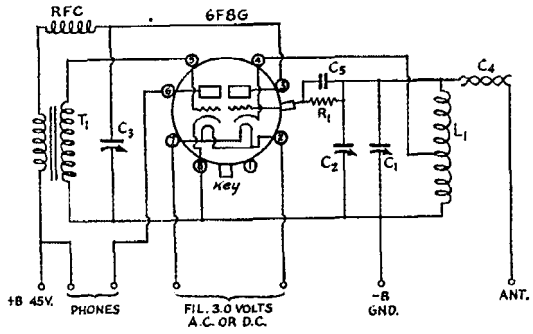
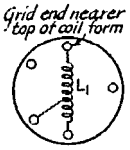


FIG. 1—CIRCUIT DIAGRAM OF THE ONE-TUBE RECEIVER

C_1—*75-μμfd. band-setting midget condenser (Cardwell ZU75AS).*
C_2—*10-μμfd. band-spread midget tuning condenser (Cardwell ZR10AS).*
C_3—*75-μμfd. midget regeneration control condenser (Cardwell ZU75AS).*
C_4—*Insulated wire-ends, twisted (see text).*
C_5—*0.0001-μfd. fixed mica condenser (Aerovox).*
R_1—*2-megohm, ½-watt resistor (IRC).*
RFC—*2.5-millihenry choke (National R-100).*
T_1—*3:1 audio transformer (Thordarson T13A34).*



Although the heater rating of the 6F8G is 6.3 volts, it was found that best operation of the tube in a receiver of this type is obtained with 3 volts applied to the heater. Actually, there is some variation of best heater voltage among different makes, although those used fell in this neighborhood, indicating that a supply of two dry cells or of the portion of a 6.3-volt center-tapped winding between center-tap connection and one end is quite suitable.

OPERATION

This set is not extremely critical in any respect, and, if the specifications given in the coil table are carefully followed, it should operate properly at the first test. Due to differences in the characteristics of tubes of different companies, however, it may be found necessary to move the cathode tap on the coil to some other point. This tap should be fixed on each coil so that the set goes into regeneration (as indicated by a light rushing noise) near the middle setting of the regeneration control condenser, C_3. In order to determine whether this condition exists, the low-frequency coils should be wound first, and trial of the receiver should be made, to

(Continued on page 70)