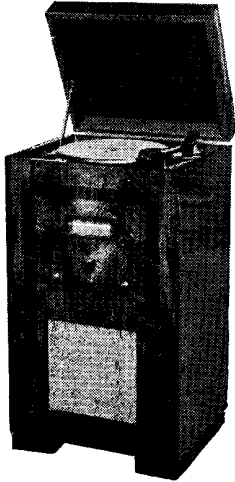


SERVICE ENGINEER



BURGOYNE "DRAGON" A.C. RECORDAGRAPH

The Recordagraph by Burgoyne Wireless (1930), Ltd., is a superhet radiogram with provision for home recording.

control. V4 is tone controlled by C27 and R21.

Mains equipment consists of transformer, full-wave rectifier, electrolytic condensers and the speaker field.

Removing Chassis.—Remove the four knobs from the front of the cabinet (grub screws), take out four long bolts that secure chassis to shelf runners, release mains cord from cleat and unsolder speaker leads from the transformer. The connections are as follows:—

Green-white, F, smoothed H.T.

White, 3, speech coil.

Green, F, unsmoothed H.T. (on right of transformer).

The chassis will then slide out of the cabinet far enough for the usual inspection. The speaker leads must be extended, as the field forms part of the H.T. smoothing equipment.

Special Notes.—The dial lamps are the normal 6-volt type for an A.C. mains receiver, and are easily removed by lifting the holder vertically.

(Continued on next page.)

CIRCUIT.—This receiver is an A.C. radiogram with provision for using the pick-up, in co-operation with a microphone, for home recording.

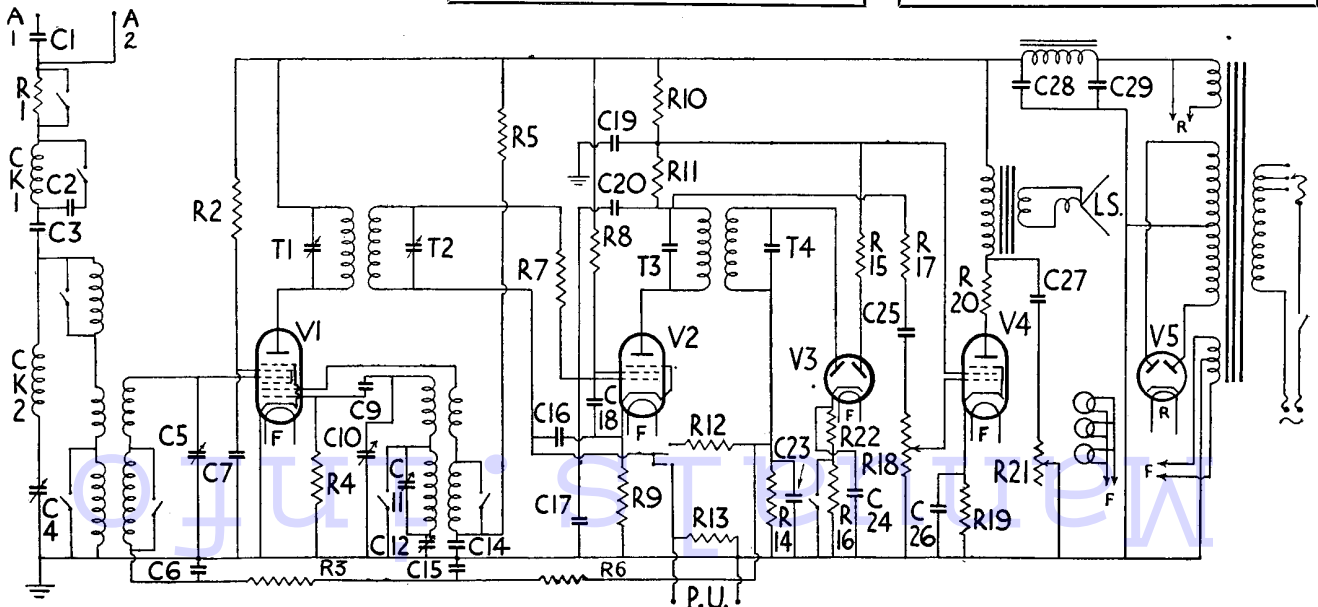
The aerial coupling to the grid of V1, a frequency changer, is through a series aerial condenser C1, a fixed resistance R1, shorted by a switch which acts as a sensitivity control, and a wave trap and an inductively coupled aerial coil.

V1 is coupled to V2, an H.F. pentode, through an I.F. transformer tuned to 465 kc. V2 is coupled to V3, a double diode, through a second I.F. transformer, a single diode of V3 being used to supply A.V.C. bias to V1 and V2.

After detection the L.F. output is fed back to the grid of V2, via R12 and R7, and after further amplification is passed to V4, the output pentode, via the volume

RESISTANCES		
R.	Purpose.	Ohms.
1	Sensitivity control	50,000
2	V1 screen decoupling	50,000
3	V1 A.V.C. decoupling	100,000
4	V1 osc. grid leak	250,000
5	V1 osc. anode decoupling	50,000
6	A.V.C. decoupling	500,000
7	V2 grid stabiliser	500
8	V2 screen decoupling	100,000
9	V2 cathode bias	200
10	V4 screen decoupling	5,000
11	V2 anode coupling	30,000
12	Diode output decoupling	100,000
13	Pick-up shunt	750,000
14	A.V.C. diode load	500,000
15	Idle diode feed	5 meg.
16	Sensitivity control	20,000
17	V2-V4 L.F. coupling	100,000
18	Volume control	500,000
19	V4 cathode bias	140
20	V4 anode decoupling	100
21	Tone control	10,000
22	V3 cathode bias	20,000

CONDENSERS		
C.	Purpose.	Mfd.
1	Series aerial	.00005
2	Wave trap	.00005
3	Series aerial	.0001
4	Wave trap	.0001
5	H.F. tuning	.0005
6	V1 A.V.C. decoupling	.1
7	V1 screen decoupling	.1
9	V1 osc. grid	.0001
10	Oscillator tuning	.0005
11	Long-wave trimmer	.00007
12	Long-wave padder	.00055
14	V1 osc. anode decoupling	.1
15	A.V.C. decoupling	.1
16	Diode	.001
17	V2 bias decoupling	.1
18	V2 screen decoupling	.1
19	V2 anode and V4 screen decoupling	2
20	H.F. by-pass	.0005
23	V3 A.V.C. diode decoupling	.001
24	V3 bias decoupling	.1
25	H.F. shunt	.01
26	V4 bias decoupling	25
27	Tone control	.025
28	H.T. smoothing	12
29	H.T. smoothing	8



An interesting reflex circuit is used in the Recordagraph. V2 is both an I.F. amplifier and an L.F. amplifier.

