

AERODYNE UNIVERSAL "CURLEW"

Circuit.—The H.F. valve VP13A (V1) is preceded by a band-pass aerial coupling, and is followed by a tuned anode coil with anode decoupling. Volume is controlled by variable potentiometer in the aux. grid and cathode circuit.

An SP13 (V2) operates as a proper power grid detector with reaction. The pilot lamp is connected across a resistance in the filament circuit. The L.F. coupling is by resistance capacity filter with anode decoupling.

The output valve Pen. 26 (V3) has a grid-stabilising resistance, and is tone compensated by a condenser between the anode and chassis.

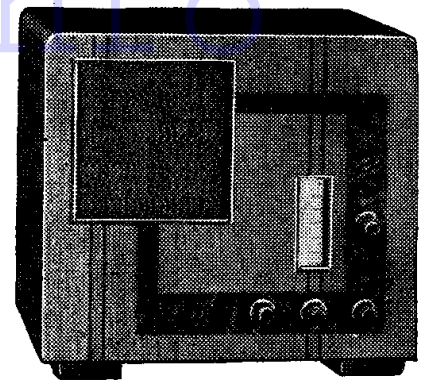
Mains equipment includes a barretter lamp C1, and an indirectly heated full-wave recti-

fier VR2 used as a half-wave with the anodes strapped together. Smoothing is by choke in the H.T. + lead with electrolytic condensers. The L.S. field is connected across the unsmoothed H.T. A high-frequency choke is included in each mains lead.

On D.C. the rectifier acts as a resistance of low value.

Special Notes.—Mullard universal valves are used. The H.F. and detector types V1 and V2 have 13 v. .2 amp. filaments; the output valve (V3) a 26 v. .2 amp.; and the rectifier a 30 v. .2 amp. filament.

In the "P" bases used in the valves of this set, the terminals are as follows, looking from underneath the valve-holder, and



The "Curlew" by Aerodyne Radio is a straight three utilizing Mullard A.C./D.C. valves.

counting from the first of the four close together:—

- (1) Metallising, (2) heater, (3) heater, (4) cathode, (5) suppressor grid, (6) blank, (7) aux. grid, (8) anode.

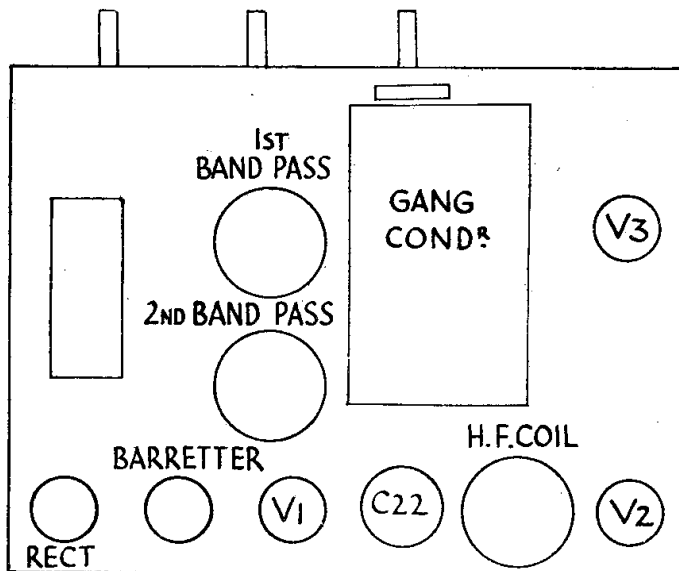
In all these valves the control grid is provided by the thimble connection at the top.

In the output pentode, terminal (5) is also left blank.

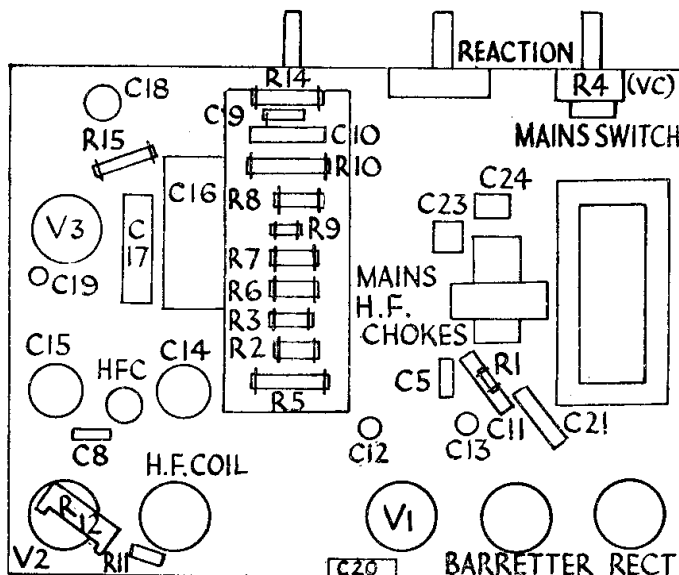
Rectifier connections are (in same order):—

- (1) Cathode 1, (2) heater, (3) heater, (4)

(Continued on opposite page.)



The top deck layout of the Curlew. Note that there is a barretter next to the rectifier.



Although rather complicated, the under chassis design of the Aerodyne Curlew A.C./D.C. receiver is quite easy to follow with the aid of this layout.

VALVE READINGS

Valve.	Type.	Electrode.	Volts.	M.A.
1	VP 13A ...	anode ...	160	4.8
		aux.grid ...	73	
2	SP13 ...	anode ...	35*	.6
		aux.grid ...	22*	
3	Pen 26 ...	anode ...	190	34
		aux.grid ...	130	

* High values of resistances in circuit.

RESISTANCES

R.	Purpose.	Ohms.
1	Bias feed to V1 grid ...	1,000
2	Part of V1 aux. grid ptr. ...	15,000
3	Limiting V1 cathode bias ...	200
4	Var. volume control ...	8,000
5	Top part of V1 aux. grid ptr. ...	30,000
6	V1 anode decoupling ...	15,000
7	H.T. feed to V2 aux. grid ...	1 meg.
8	V2 anode L.F. coupling ...	.25 meg.
9	V2 anode decoupling ...	50,000
10	H.T. feed to V3 aux. grid ...	20,000
11	V2 grid leak ...	.25 meg.
12	Voltage dropping for pilot lamp ...	250
13	V3 grid leak ...	.5 meg.
14	V3 cathode bias ...	400
15	V3 grid stabiliser ...	11,000

CONDENSERS

C.	Purpose.	Mfd.
5	Aerial series condenser ...	.001
7	V2 grid ...	.00005
8	V2 anode by-pass ...	.0003
9	V2 anode by-pass } HF filter ...	.0003
10	L.F. coupling V2 to V3 ...	.02
11	Band pass coupling ...	.05
12	V1 aux. grid ...	.1
13	V1 cathode ...	.1
14	V1 anode decoupling ...	1
15	V2 aux. grid ...	1
16	V2 anode decoupling ...	10 el.
17	V3 aux. grid ...	1
18	V3 cathode ...	20 el.
19	V3 anode compensating ...	.001
20	Between chassis and earth ...	.01
21	H.F. by-pass between rect. anodes and cathode ...	.05
22	H.T. smoothing ...	8+8 el.
23	In series for mains aerial ...	.0003
24	" " " " ...	.0003

