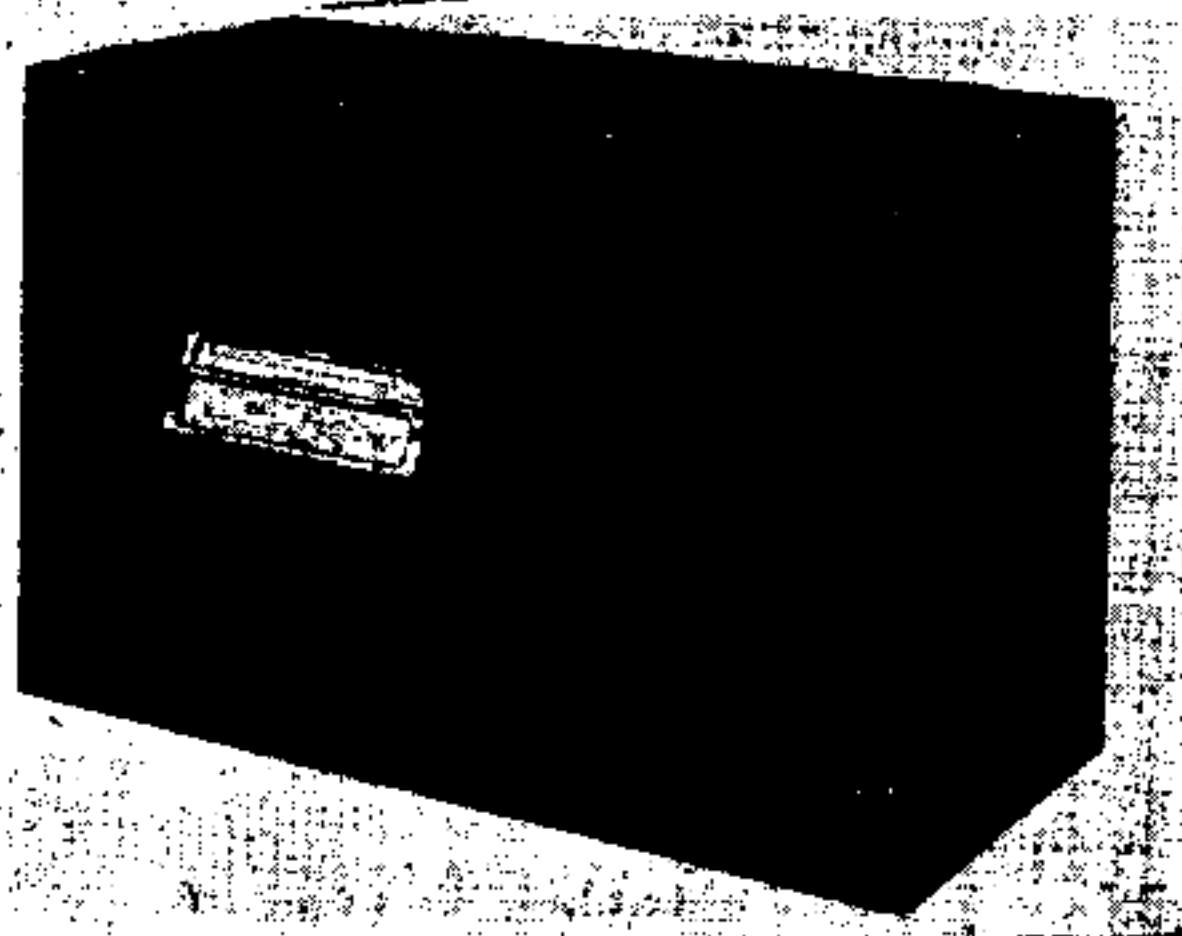


# ATLAS TYPE B345 BATTERY SET



*The tilting-dial is a distinguishing feature of the Atlas B345 receiver produced by H. Clarke & Co. (Manchester), Ltd.*

80 v.; G.B.+ (grey); G.B.- 4½ (yellow); G.B.- 9 (white).

The volume control resistance acts as a bleeder for the G.B. battery.

**Quick Tests.**—These are best performed by noting the clicks during valve tests.

**Removing Chassis.**—Turn dial to horizontal position, remove knobs (grub screw), three screws underneath and undo speaker leads from transformer. Lift the chassis clear of the back stops.

**General Notes.**—In some models the L.F. choke was omitted, C10 was .05 mfd., and the switch was in the L.T.—lead.

There is no trimmer for the aerial coil on the gang condenser—instead there is a variable type mounted on the front of the chassis.

There are three terminals on the V2 coupling choke, of which the one nearest the end is used only as an anchorage.

**The Cord Drive.**—To reach the cord inside the dial, remove the two screws at the ends of the chromium-plated frame, taking care not to lose the distance pieces inside.

**Circuit.**—The H.F. valve, VP2 met. (V1), is preceded by a tuned secondary H.F. transformer with a medium-wave choke in series with the primary to prevent break through on the long waves.

Volume is controlled by a potentiometer across the G.B. battery. Coupling to the next valve is by another tuned secondary transformer.

The second valve, SP2 met. (V2), operates

as a leaky-grid detector with reaction, and is coupled to the output valve by an L.F. choke, damped by the resistance R3, and condenser and grid leak filter.

The output valve, PM22A (V3), is tone compensated by a condenser across the primary of the output transformer.

**Special Notes.**—Battery voltages are:—  
H.T.+ (red), 120 v.; H.T.+ (yellow),

## ATLAS B345 BATTERY SET (Cont.)

Ease the removable station dial from its pins and adjust the clip on pointer.

The cord is connected to one end of the spring on the disc drive, and passes round the small peg, over the drum and round two pulleys to the pointer from which it continues over the pulleys at the other side, once round the drum, in the reverse direction, to the other end of the spring.

In replacing the dial frame place the screws through the holes and fix the distance pieces round them. Then replace the frame.

**Replacing Chassis.**—Turn the dial to a horizontal position, and lift the chassis inside the cabinet.

Replace the holding screws with the cut washer at the back, connect the speaker leads and the knobs.

### RESISTANCES

R.	Purpose.	Ohms.
1	Voltage dropping to V2 aux. grid.	.5 meg.
2	V2 grid leak	2 meg.
3	Across L.F. coupling choke	.1 meg.
4	V3 grid leak	2 meg.
	Volume control (log)	50,000

### VALVE READINGS

No reaction and no signal.

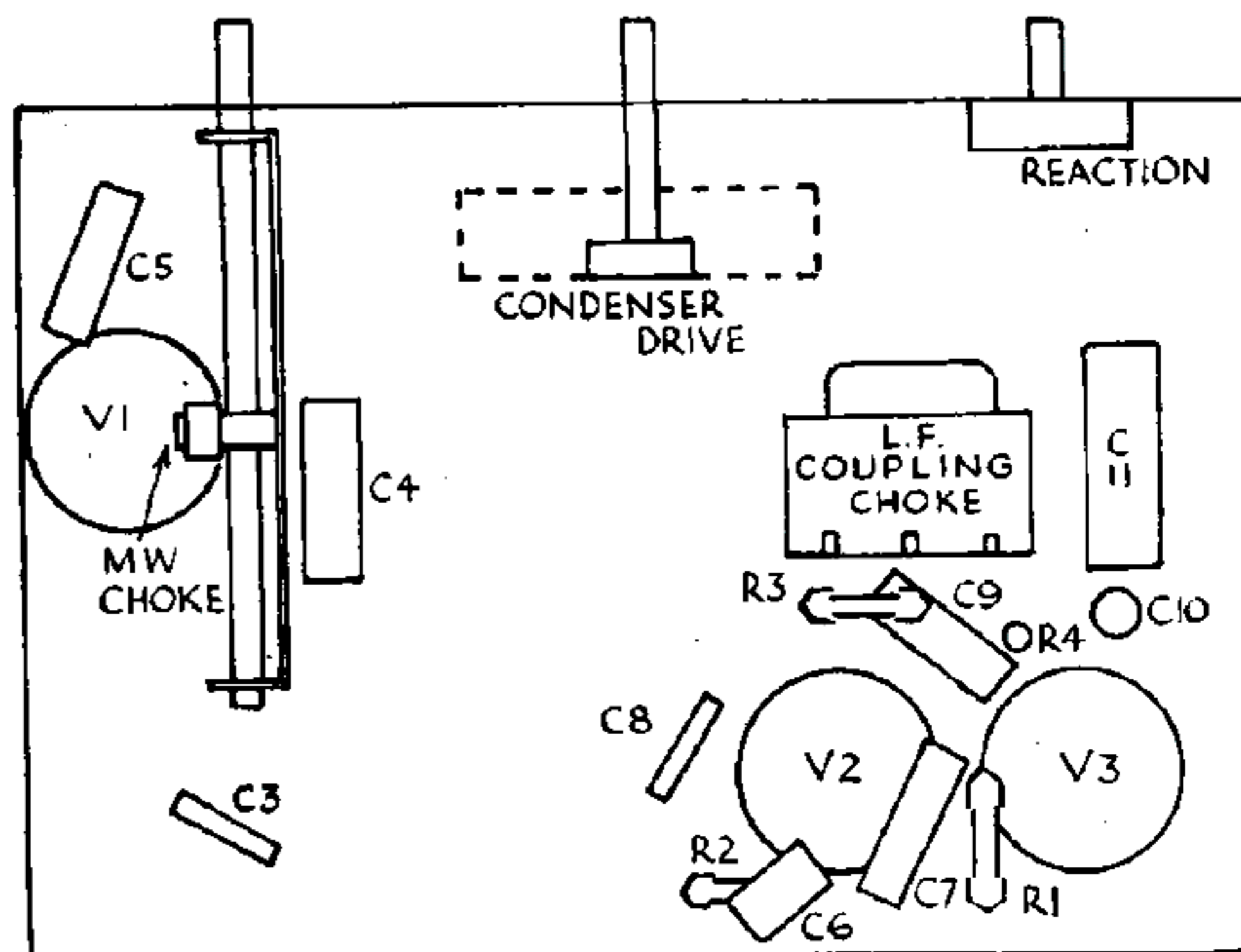
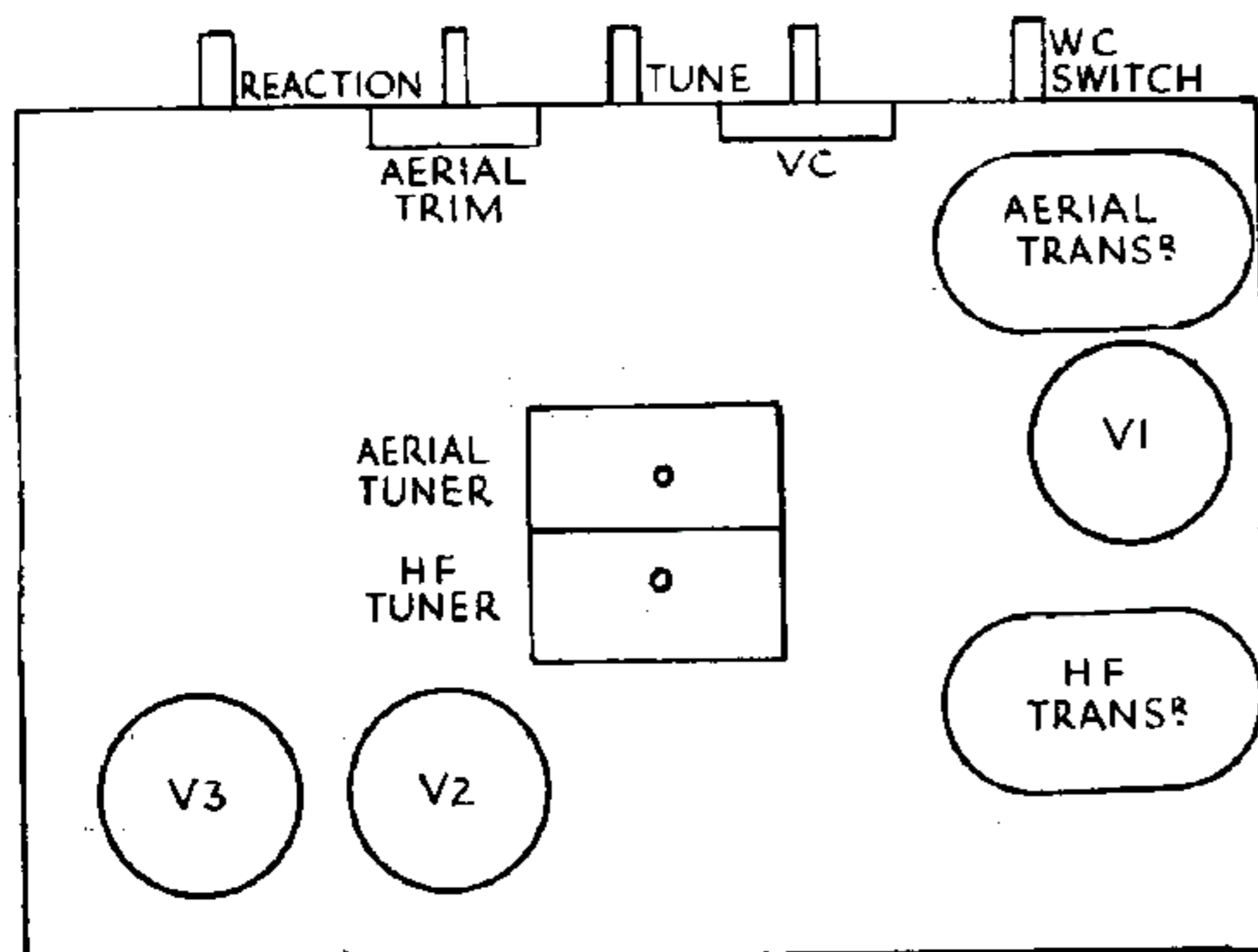
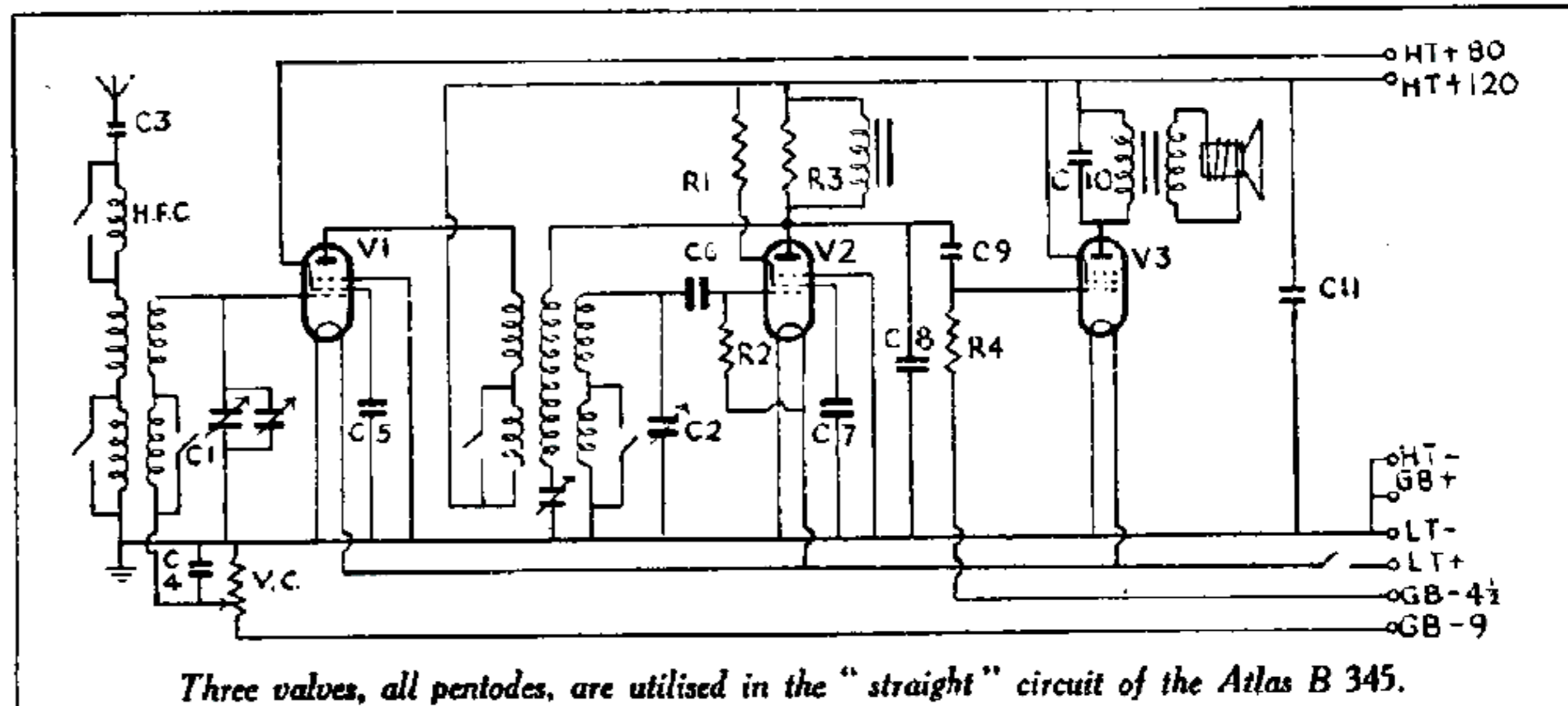
Valve.	Type.	Electrode.	Volts.	M.A.
1	VP2 met. (7)	anode	120	1.3
		aux. grid	80	
2	SP2 met. (7)	anode	116	.4
		aux. grid	*	
3	PM22A (5)	anode	120	4.1
		aux. grid	120	.9

\* High value of resistance gives entirely erroneous reading.

### CONDENSERS

C.	Purpose.	Mfd.
3	Series aerial	.0005
4	Decoupling V1 grid	.1
5	V1 aux. grid by-pass	.1
6	V2 grid reservoir	.0001
7	V2 aux. grid by-pass	.1
8	H.F. by-pass	.0002
9	L.F. coupling	.1
10	Tone compensation, V3 anode	.01
11	Across H.T.	2

Except the mica condensers, all others are 250 v. working.



The top (left) and underneath (right) layouts of the Atlas battery set. An L.F. coupling choke, shunted by a resistance R3, is a novel point.