

Osram Valves.

A NEW full-revised series of Osram valves have been brought out by the British General Electric Company. From their Wellington agents we have received samples of the 6-volt type. The following is a table of the Osram valves now on the market.

We have tested the following valves:
DEH610—This is a valve for use with a resistance-coupled amplifier, but used as a detector, it is very satisfactory. It oscillates freely on low voltage and is capable of feeding to the amplifier a wide undistorted range.

DEL610—This is a general-purpose valve which can be used satisfactorily as R.F., detector or audio. It is capable of handling the output of a 3-valve set without distortion. Correctly biased, with 3-volts it will deliver a current of about 8 milliamperes.

DEP610—This is a very fine valve, suitable for use in the last stage of a multi-valve receiver. It does not appreciably decrease volume, and gives an overall reproduction and clearness that is the hall-mark of the good valve. The slope, 2.3 milliamps. per volt, with an impedance of 3,500, ensures perfect functioning.

These valves were found to give very fine tone and very powerful signals. There was a clearness and trueness

Laboratory Jottings

Osram Valves and Ferranti Products

about the reproduction that indicated quite clearly the merit of their combination. For a 3-valve set a combination of DEH610, DEL610 and DEP610 was found to give excellent results.

An account of the series of the new Osrams would not be complete without reference to the 2-volt vertical mounting screen-grid valves. This type em-

chart accompanies the power pack giving instructions as to which resistances to use in numbered sockets for the valves to be supplied.

From these five tappings are taken through a battery cable to the set, thus providing for separate voltage for the plates of the screen-grid, detector, I.F. and power valves, and the screening grid of the screen-grid valve. The unit is capable of delivering an output of 100 milliamps. at a voltage of 200. This is rather unusual, and fits it for use with sets using super-power valves and also for power amplifiers. Very low voltages can be taken off for the detector.

The cable connecting with the mains is provided with three wires, one

Valves	Position	vf.	if.	Ri.	g.	va.	vg.	Slope mA/V
HL210	R.F.	2.0	0.1	23,000	20.0	150	3.0	0.87
HL610	R.F.	6.0	0.1	30,000	30.0	150	1.5	1.0
S215	S.G.	2.0	0.15	200,000	170.0	100-150 max.		0.85
S625	R.F.S.G.	6.0	0.25	Variable		100-180	50-120	
Max. Rect. Cur.								
DEL210	General	2.0	0.1	12,000	11.0	150	6.0	0.92
DEL410	General	4.0	0.1	8,500	15.0	150	3.5	1.77
DEL610	General	6.0	0.1	7,500	15.0	150	3.0	2.0
DEH210	H.F.	2.0	0.1	50,000	35.0	150	1.5	0.7
DEH410	H.F.	4.0	0.1	60,000	40.0	150	1.0	0.67
DEH610	H.F.	6.0	0.1	60,000	40.0	150	1.0	0.67
DEP410	Power	4.0	0.1	5,000	7.5	150	9.0	1.5
DEP610	L.F. Audio	6.0	0.1	3,000	7.5	150	8.0	1.5
P425	Power	4.0	0.25	2,300	4.5	150	12.0	1.95
P625	Power	6.0	0.25	2,400	6.0	250	18.0	2.5
P625A	Power	6.0	0.25	1,600	3.7	180	22.5	2.3
DEP240	Power	2.0	0.4	2,500	8.0	150	8.0	2.3
DEP215	Power	2.0	0.15	5,500	4.0	150	20.0	1.6
DEP410	Power	4.0	0.1	5,000	7.0	150	12.0	1.4
PT235	Pen.	2.0	0.35	55,000	90.0	150	12.0	1.65
H8	A.C.	0.8	0.8	55,000	40.0	150	1.5	0.73
H18	A.C.	0.8	0.8	17,000	17.0	150	3.5	1.0
P8	A.C.	0.8	0.8	6,000	6.0	150	10.0	1.0
U5	Rec.	5.0	1.6	300	60 mil.	400+400		
U8	Rec.	7.5	2.4	250	120 mil.	500+500		

Where vf., filament volts; if., filament current; Ri., impedance; g., amplification factor; va., anode voltage; vg., grid voltage.

bodies the latest results of research on the screen-grid, and gives excellent results. It was found to function best with about 60 volts on the screen and 150 on the plate. The filament requires .15 amperes at 2 volts, and, in common with other screen-grid valves of English make, it has the plate connected to the terminal at the top of the valve.

Advice has been received that a super-power valve, which will take 250 volts on the plate, is to arrive shortly. This valve should meet a long felt need for a power valve intermediate between the 171A type (DEP610) and the 210 type. This will be reviewed in the columns in due course.

Ferranti "B" Power Pack.

A. D. RILEY, LTD., has submitted to us for test a Ferranti H.T. Supply Unit which has recently made its appearance in New Zealand. The unit is encased in metal, the dimensions being approximately a cubic foot. It is artistically finished in brown crystal-line.

The Ferranti unit is quite a departure from the usual conception of power units. Upon opening the lid, in which is a patent switch which immediately cuts off the power, there are seen nine wire-wound resistances which have taken the place of variable knobs. These resistances are movable, and a

of which connects with the earthing system and ensures safety.

Ferranti Meters.

A very wide range of very accurate meters are now obtainable in this popular make. The portable models should appeal to the constructor or operator who is interested in examining his set. These are made with as many as three different readings, milliamps. and two voltage scales. Resistances of 200 ohms. per volt in one type of meter, and 1,000 ohms. per volt in another ensure a very high grade instrument. Meters reading up to 250 volts or as low as 7.5 are obtainable.

Through judiciously combining external resistance a milliammeter can be made to fulfil many purposes, and concerning this we shall devote an article at a future date. The meters are made in three distinct styles, panel mounting (flush and projecting) and portable.

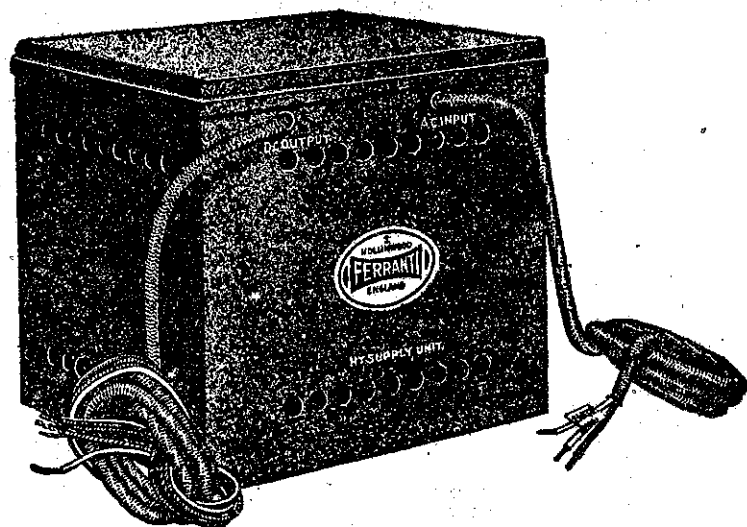
THE use of the correct type of valve is one of the secrets of successful distortionless reception.

ADVERTISING signs of the flashing electric type are capable of causing almost unbearable interference in neighbouring wireless sets if carelessly wired or maintained.

THE

FERRANTI

H.T. SUPPLY UNIT

A WONDERFUL
ACHIEVEMENTUnvarying Supply
200 Volts 100 M.A.A. D. Riley & Co. Ltd.,
Auckland WellingtonP. F. MANN, LTD.,
Madras Street,
Christchurch.S. VEITCH & CO.,
Rattray Street,
Dunedin.