



THE MYERS VALVE.

We have recently tested two types of the "Myers" valve submitted to us by Messrs. Cunningham & Morrison, of 49, Warwick Road, Earl's Court, one designed to work from two dry cells, and another known as the "Universal." This latter is an ordinary hot filament type. Both valves present the same outward appearance, and the first point to claim attention is the mounting, which is quite unique. The bulb is tubular in shape and is fitted with a cap at either end, through which the wires to the electrodes are taken, two being let through each end. This method of construction results in low capacity, but of course necessitates a special fitting. The drilling template supplied facilitates panel mounting however. Another point worthy of note, and applicable to both types of valve, is the extremely rugged nature of construction. The electrodes are rigidly anchored together and are of such dimensions as to ensure freedom from microphonic noises, a point of extreme importance when dealing with multi-stage amplifiers.

The dry cell valve.

As to electrical behaviour, and dealing with the dry cell valve first, we find from a pamphlet issued that the normal filament current is 0.25 ampere, but the tube on which our tests were made gave no emission at this figure, and to obtain a saturation emission of 4 milliamps, the filament current had to be increased to 0.45 of an ampere. The relation between filament current voltage and emission is shown in Fig. 1B. Fig. 1A gives the anode current grid volts characteristic, from which it will be seen that the tube has a magnification factor of 10 and a resistance of 30,000 ohms. It will be noted that the characteristics are straight for an appreciable range, and thus the valve should function well as a low frequency amplifier.

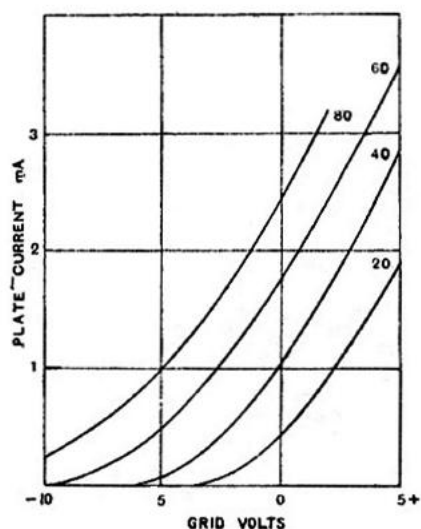


Fig. 1A.

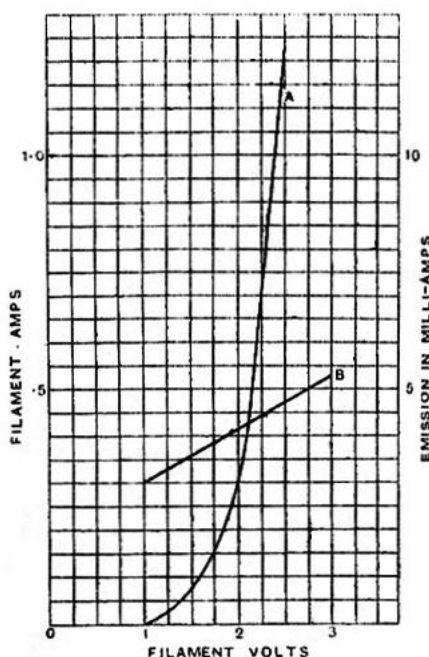


Fig. 1B.

Universal valve

As regards the "Universal," a similar discrepancy appears with regard to filament volts and amps. This is shown in Fig. 2B, Fig. 2A gives the anode current grid volt characteristics of this valve, which shows a magnification factor of 7 and a resistance of 27,000 ohms. Here again the characteristics, particularly the 100 and 120 volt curves, are straight over a very extended range. Correctly adjusted, the valve should easily fulfil the claim of rendering perfect amplification.

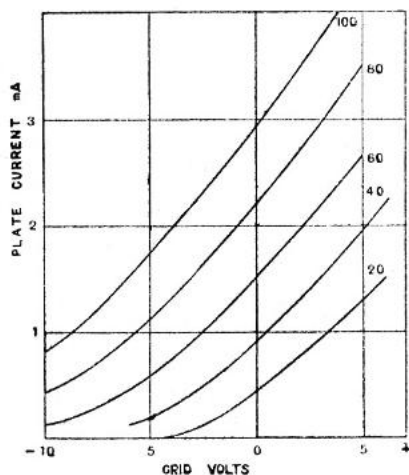


Fig. 2A.

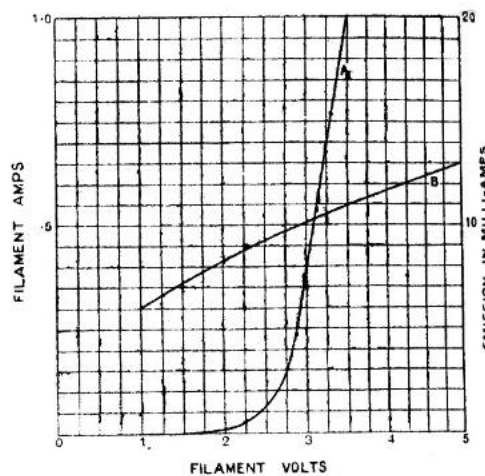


Fig. 2B.

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EXPERIMENTAL WIRELESS.



Fig. 1.—The Myers receiving valve.

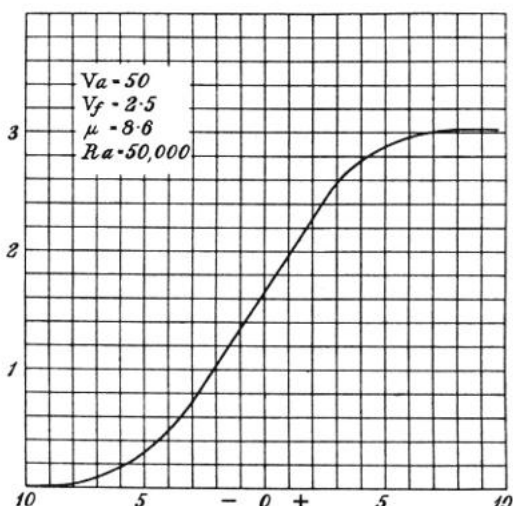


Fig. 2—Characteristic curve of the Myers valve.

type of connection to the electrodes. A set of clips for mounting is supplied with each valve, together with a template for marking out the panel. The method of construction results in a very strong valve, which, at the same time, is very free from microphonic noises. The Myers valve should readily find a place amongst every experimenter's equipment.

TWO NEW RECEIVING VALVES.

A type of valve which is well known to the Canadian experimenter as the Myers Valve has recently been placed on the market by Messrs. Cunningham and Morrison, 49, Warwick Road, S.W.5. Two types are being made, one consuming about a quarter of an ampere at four volts, while the other operates at about two to two and a half volts. We have tested, both types, and find them to be very good from all points of view. The two volt valve, besides being tested on signals, has been examined in our laboratory, and the results of the test are summarised briefly below.

A characteristic curve is given, and it will be noted that the "straight" portion is practically straight over almost its entire length. A set of curves were taken, and gave an amplification factor of 8.6, which, in conjunction with an anode filament impedance of about 50,000 ohms, should indicate a useful performance for general work. On test it was found to be an efficient rectifier, and also capable of dealing with a considerable load as an audio frequency amplifier, the saturation current being quite large. It was also found to be a quite good radio frequency amplifier, and its function in this capacity is, no doubt, assisted by a fairly low self-capacity, due to the method of construction. A general appearance of the valve can be gathered from the accompanying photograph, which indicates the special

MAKING DISTANT STATIONS FAMILIAR

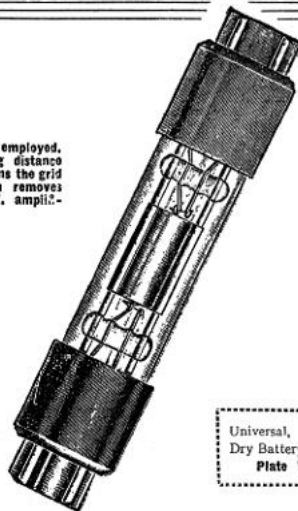
The true functioning of an H.F. amplifier decidedly turns upon the type of valve employed. Ordinary valves with a substantial grid to anode capacity are unsuitable for long distance reception. The MYERS, however, quite apart from its other distinctions, designs the grid and anode leads out at opposite ends. This constructional difference which removes electrode lead capacity eliminates one of the chief barriers to successful H.F. amplification. There is but one valve for H.F. work—remember the name—

Myers Valves

PRACTICALLY UNBREAKABLE

By reason of the high electronic emission of the MYERS it is possible to get perfect results with only $2\frac{1}{2}$ volts on the filament.

**THE ONLY LOGICAL VALVE
for FRONT PANEL MOUNTING.**



Amateurs in all corners of the globe testify to the fact that MYERS

**—put the
world on
your dial**

It is needless for us to impress upon experimenters that the remarkable achievements which the MYERS alone record is due to their particular construction. Grid-Anode capacity is down to the irreducible point so essential for H.F. amplification.

Universal, 12/6 - - 4 volts .6 amp.
Dry Battery, 21/- - $2\frac{1}{2}$ volts .25 amp.
Plate Voltage, 2 volts—300 volts.

SELLING AGENTS.

LONDON—The Dull Emitter Valve Co., 83, Pelham Street, South Kensington, S.W.7 (Kensington 3337).
MANCHESTER—R. Davis & Sons, Victoria Bolt and Nut Works, Bilberry Street.
LIVERPOOL—Apex Electrical Supply Co., 59, Old Hall Street, Liverpool.
GLASGOW—Milligan's Wireless Co., 50, Sauchiehall Street, Glasgow.
YORKSHIRE—H. Wadsworth Sellers, Standard Buildings, Leeds.
SOUTHERN COUNTIES—D.E.D.A., 4, Tennis Road, Hove.

Advertisement of Cunningham and Morrison,
Windsor House, Victoria Street, London, S.W. 1.

Myers	„Universal”	„Dry cell”
Filament	4 volts, 0.6 amp	2.5 volts, 0.25 amp.
Plate volts	2 – 300 volts	2 – 300 volts
Internal resistance	27,000 ohms	30,000 ohms
Magnification factor	7	10