

Micro-Wave Valve Announced

R.C.A. Experimental Type

A RADICALLY new type of radio valve resembling an acorn in size and shape, for use by amateurs and experimenters in ultra-high frequency or micro-wave reception and transmission, has been announced by the Amateur Radio Division of the R.C.A. Radiotron Company.

Amateur radio experimenters, who have been credited with being the first to open up the practicable possibilities of short waves, are now exploring the possibilities of the extremely short micro-waves, which are similar in some ways to light rays because they seem to reach out only as far as the eye can see. Comparatively little is yet known about the micro-waves, and they offer an attractive field for research and experimentation which the new acorn type valve should advance.

In announcing the new device, the R.C.A. Radiotron Company emphasises that it has been developed for amateur and experimental use, and is in no way to be considered as a substitute for use in conventional types of receivers. The valve, which has been designated by the number RCA-955, is a heater-cathode triode which may be used as an amplifier, detector or oscillator at frequencies up to 600 megacycles, or about half a metre in wavelength. The new valve is the only triode capable of operating at ultra-high frequencies, and it is therefore indispensable for use in the 2½-metre and lower wavelength bands.

Although the 955 is not especially designed to be a transmitting valve, it may be used as such just as other receiving valves are used in transmitters by amateurs. When used for this purpose, sufficient power output is usually obtainable to cover the line-of-sight transmission distances which are generally reached by micro-wave transmissions.

Because of its extremely small size, the acorn type valve is especially suited for use in portable radio equipment where conservation of space and weight is important.

The essential characteristics of the 955 acorn type valve are:

Heater Voltage	6.3 volts
Heater Current	0.16 amp.
Maximum Plate Voltage ...	180 volts
Grid Voltage	5 volts
Maximum Plate Current	4.5 milliamps.
Amplification Factor	25

Radio Normandie

By 81S.

AS many dxers in this country hold verifications from this station, perhaps the following account of how it came into existence may be of interest. Fecamp Radio Club was founded on January 1, 1924, but it is now known as the "Association of Auditeurs de Radio Normandie." With a membership of over 15,000, it is the most important and active club in Normandy.

In 1926 the amateurs were losing interest and as a result the club suffered a grave setback. The directors decided to meet the crisis by organising some broadcasts to create new interest in the club.

M. Le Grand was made president, and after the war he asked for authority to broadcast for the P.T.T., using the call letters EFSIC. EFSIC continued to function more or less regularly on low power from 1926 on with very satisfactory results. On November 18, 1926, the station became known as "Radio Fecamp," thus losing its distinction as a private station.

The club began to grow and the construction of a new station was decided upon. The home of M. Le Grand was transformed into a studio, and the salons were used as an auditorium. The transmitter was placed on the verandah, while the aerial was erected on the roof.

In 1929 the station was officially recognised by the Government. Because of the impossibility of continuing broadcasts from Monsieur Le Grand's home, two 50-metre masts were erected, between which stood a large building housing all the station equipment. The drawing room of the radio club was transformed into a small auditorium.

In 1933 two 330-foot masts were erected, and increased the range of the transmitter considerably. At this time a portable transmitter was installed in a trailer for relaying from remote parts of the main transmitter. Also in 1933 certain difficulties arose when the telephone circuits were taken from Radio Normandie and also the studios at Havre and Rouen, which supplied the major portions of the station's programmes.

Early this year Radio Normandie almost ceased operations, for by the Lucerne Act it was assigned to the common wave of 200 metres (1500 k.c.), but due to the efforts of a French Minister it was allotted a frequency of 1456 k.c. (206m), the wave of Eiffel Tower.

Fecamp, or Radio Normandie, is one of the most popular stations heard in England, due chiefly to its many varied programmes. Fecamp has more time on the air than any other station in Europe, a fact for which dxers the world over can be thankful when listening for this 500-watt European.

Improving a Portable

It is a well-known fact that the range and volume of a portable set can often be considerably increased by connecting it to an aerial and earth; most portable sets have provision made for connecting aerial and earth in this way when required.

As a rule, it is a comparatively simple matter to get a suitable aerial because this may consist of a length of wire strung round the room or laid in the picture rail. The earth connection, however, sometimes offers a difficulty, but this can very easily be met by using, so to speak, another aerial, only this time laid around the floor of the room—a sort of counterpoise earth.

The upper length of wire will be connected to the aerial terminal of the set and the lower one to the earth terminal. If this is not convenient good results can sometimes be obtained by using a coil of wire placed on the bottom of the cabinet.

In addition to increasing range of volume, it will generally be found that using the extra aerial and earth—particularly the latter—will have the effect of stabilising the working of the receiver and may in some cases also improve the tuning.

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