

British Radio Flourishes

1930 Exhibition Marks Tenth Anniversary of Radio in England



THE considerable reduction of the net royalty on valves used in England has had a big effect on the trend of radio design in that country. It will be remembered that until recently a prohibitive sum was demanded in royalties for every valve sold, and this naturally meant that only the smaller sets found a market. The construction of four and five-valve sets was an unheard-of thing, and one and two-valvers were developed to very high degrees.

The absence of the heavy royalty had a very marked effect upon this year's Radio Exhibition, which has proved the most ambitious yet held. More valves are being used in this year's sets, though the American style of seven and eight valves has not yet found favour with British manufacturers. An increase in the number of valves has meant that sets can be simplified and the gain per valve need not be so high. The net result is a non-radiating set, in which tone is a feature.

The A.C. Set.

THE a.c. set has, as in other parts of the world, captured the buying public, though, judging from the exhibitions of parts, not the home constructor. This enthusiast is still interested in the construction of simple battery sets. The use of mains current has to a large extent been responsible for the marked increase in the number of portable and novelty sets. The objection to the portable is undoubtedly the impracticability of the small batteries that one must necessarily use. The mains set has overcome this problem, and the up-to-date sets exhibited can use either a light eliminator or a battery. This is of highest advantage, for the set can now be used in the home without the constant expense of batteries, and can be taken out into the country and put to its proper use. Just how small these can be made is exhibited by the tiny set shown in the accompanying photograph.

The development of power from the mains has introduced a large number of sets built particularly for room. Thus we see sets built into a dummy bookcase, into a marble or enamelled-topped table for the kitchen, another into a woman's work basket, and still another into the glove drawer of the hall.

The prices have shown a greater range than ever before. There was the two-valve set costing £2/10/., and the 500-guinea machine that, combining gramophone and radio, incorporated not only an automatic record-changing device, but also a needle changer. The most remarkable thing about this set was the fact that it contained only five valves. Such a state of affairs is without explanation to the New Zealander who thinks of this class of instrument in terms of sevens and eights, but when it is realised that all the stations that are worth hearing are within a radius of 2000 miles or so, one can see the futility of powerful sets. The number of English programmes available can be counted on the fingers of one's hand.

Anniversary of British Radio.

THE exhibition this year marked the tenth anniversary of the introduction of radio into Great Britain. Just this time ten years ago Dame Nellie Melba sang "Home, Sweet Home" from Chelmsford to some 1000 listeners. Now some three million are registered set owners. This large number represents a percentage of nearly 81 per cent. of the total population and determined efforts are being made to increase this. It is anticipated that at least 25 per cent. more listeners will be added as a result of this drive. When it is realised that there are about four people to every family and one in every three persons now has a wireless set, some idea of the tremendous popularity of wireless will be gauged. The New Zealand ratio is about 4 per cent. and the Australian 5 per cent.

APPROPRIATE to the 10th anniversary of the birth of British radio, the Broadcasting Corporation arranged a special exhibit, showing the progress of wireless transmission during the ten years of operation. The first apparatus was very simple and inadequate as compared with the modern complicated machinery which was actually used during the exhibition.

As with the New Zealand exhibitions, programmes were relayed to the exhibition and over 250 loudspeakers were used to convey the music to the thousands who were present every day. With over 400 stands, representing a value of £5,000,000, and stretching as far as five miles, one had a good deal to see if the exhibition was to be covered in one visit. The stands were drawn by ballot, so that there was no grouping and one had to go to some pains to see everything he

was interested in. To facilitate matters a most comprehensive guide was prepared, and with this was a list of the principal stations in Europe, alphabetically arranged.

No Unemployed.

IN connection with the exhibition it is interesting to note that the rapid progress of radio is not leaving behind it a long list of unemployed, for it is claimed that in this industry alone there are no unemployed, not even an unemployment register. The industry has even absorbed large numbers of the unskilled. Six big factories have been opened in various parts of the country and a total of more than 200,000 square feet of new factory floorage has been laid down. Nearly a million people are employed in the English radio business and plans for its extension are now being matured.

Marconi's Reminiscences

MARCHESE MARCONI, who has been nominated president of the Italian Academy, recently addressed a meeting of the Italian Society for the Development of Science at Bolzano. After referring to the widening of the field of research by numerous recent discoveries in relation to the propagation of electric waves, and after having referred to the universal acceptance of the theory of Heaviside and of Kennelley of the existence in space of a reflecting layer of ionised particles, the speaker mentioned the numerous scientists who had studied and amplified the theory in question. He said that the results of the most recent researches served to confirm the hypotheses by which not one but several layers capable of reflecting electric waves existed at heights which varied according to the hour and the position of the transmitting station. The position of these layers was influenced by the effect of light, by the electrical and magnetic activity of the sun, and also, perhaps, by other causes so far undiscovered. After having analysed the progress made in radio communication on short waves, Senator Marconi recalled that the special qualities of these waves were studied and demonstrated by him at the end of 1915. He went on to explain the phenomenon whereby electric waves always preferred the longer to the shorter way between two stations, and added that this phenomenon is utilised in radio transmissions.

The speaker also referred to electric "echoes," which, he said, were divided into two classes according to the path which they took, and pointed out that the waves passed easily through the Heaviside Layer.

After confirming that the existence of reflecting layers is the most acceptable hypothesis for the explanation of the phenomenon of the transmission on waves over great distances, Senator Marconi explained the importance of the angle of transmissions with reference to the earth. He concluded his address with the hope that the science of radio would always work for the special benefit of humanity.



One of the features of the London Radio Exhibition was the large number of portables. Some of these have reached very small dimensions, and the one shown is almost pocket size. It is complete in every respect.