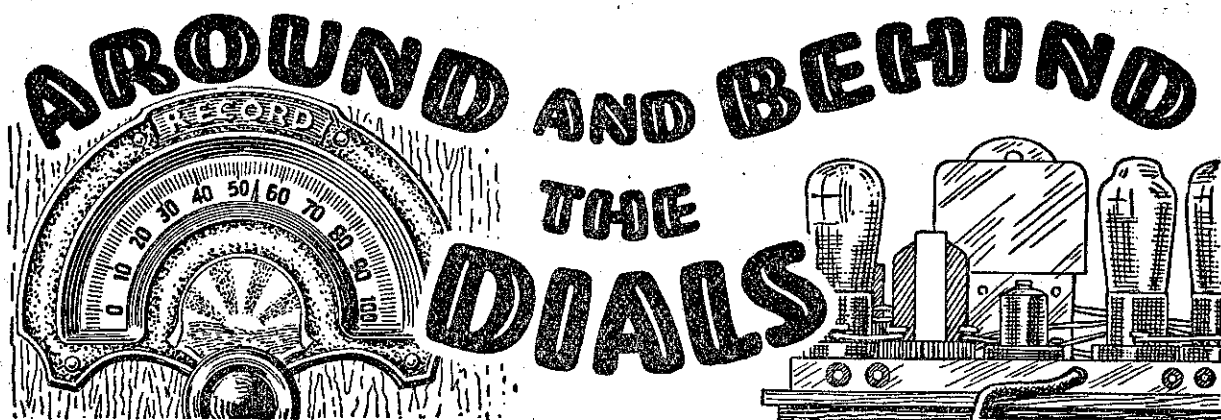




Serving Nearly 30 Million Listeners

How The B.B.C. Performs Its Colossal Task

AT the end of 1923 there were just over half a million licensed listeners in Great Britain, served by nine main and eleven relay stations. To-day there are over seven million licenses in force, representing nearly thirty million listeners, and yet the bulk of the broadcasting service is provided by only five "twin-transmitter" stations situated at strategic points throughout the British Isles. Nevertheless, every listener has the choice of two high-quality programmes, even with the simplest of sets. The extreme simplicity of the B.B.C. service, which at the same time is recognised by many as the best in the world, is a notable triumph for the engineers who planned it.

Broadcasting in Britain on an organised basis began in 1922, when the British Broadcasting Company was formed. When it came into being there were already three stations operating, one in London, another in Birmingham, and a third in Manchester. These stations had, of course, been erected by private concerns, and they were bought out by the Company, which immediately proceeded with the erection of several more under the terms of the license issued by the Postmaster General.

The original idea was to provide eight new transmitting stations which would give a service of an area of some 70 miles in radius, but radio was a somewhat crude affair twelve years ago, and it was found that the coverage from each station was more in the neighbourhood of 25 miles. These eight stations were in

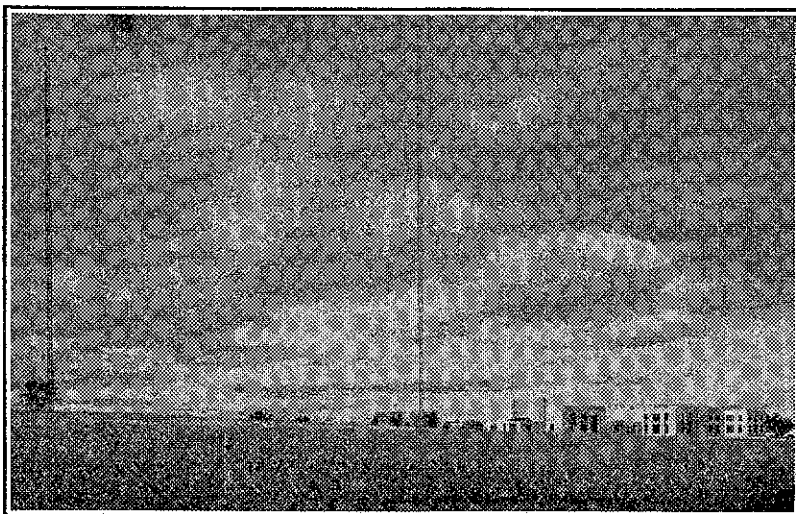
operation by the end of 1923 and a ninth was built in Belfast to serve the heavily populated district of Northern Ireland. It was quite apparent by this time that there were large parts of the country that were receiving no sort of service at all, and the erection of a number of low-powered stations was decided upon to augment the existing service.

The first of these was put up in Sheffield, and by the end of 1924 there were twenty-one low-powered broadcasting stations in operation in Britain, each one of them in the centre of a city. Still the service was not entirely satisfactory, and there were still large areas with very unreliable service or no service at all.

For this reason, in July 1924 it was decided to put up an experimental transmitting station to transmit on a wavelength of 1600 metres, with considerably greater power than had previously been used. This station was erected at Chelmsford, with a power of 15 kilowatts—about three

times the power of the present 2YA—and it was an immediate success, easily covering an area of radius of 150 miles or more. Toward the end of the same year it was decided to build a permanent longwave station at Daventry along similar lines.

The main stations established according to the original plan were entirely self-contained from a programme point of view, except that the general news bulletins were common to them all. The relay stations, on the other hand, took the bulk of their programmes from London. There



THE B.B.C.'S NEW "VOICE."—This photograph shows the station buildings and 700-foot transmitting masts of the B.B.C.'s new longwave station at Droitwich, Worcestershire. It has a power of 150 k.w.—roughly 30 times that used by 2YA—and it is expected that it will replace three of the smaller-powered national relay stations.