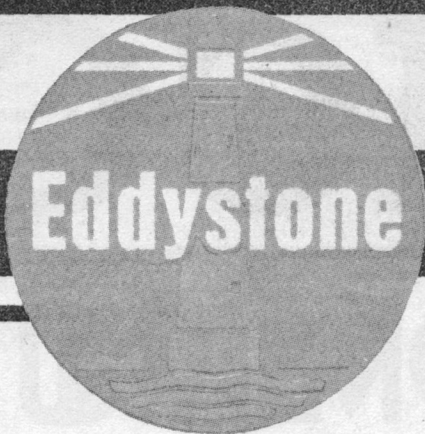


THE

Eddystone

STORY

FROM PINS TO PIN DIODES



by Ken Williams

Although radio equipment has only been produced under the Eddystone trademark since 1923, to say that the story started there would be wrong, for the history of the Stratton organisation goes back many years – to 1860, when a Gloucestershire pin maker called Stephen Jarrett, and a Birmingham merchant, Charles Rainsford, became partners. The firm which they founded was known as 'Jarrett and Rainsford' and they manufactured steel pins at premises in Islington, Birmingham.

Thirty-eight years were to pass before the next significant event took place. Then a fifteen-year-old boy, George A Laughton (GAL) joined the firm as an office boy. Six years later, the company's activities expanded to manufacture hairpins, with young George appointed assistant manager for the operation.

By 1911, GAL was running a section manufacturing coronation flags and badges. Certain parts of these were supplied by a near-bankrupt, drunken manufacturer. Alive to the inherent dangers of such a source of supply, GAL purchased the concern and for the princely sum of £50 became the owner of a firm possessing a few tools and benches and a staff of two girls and a drunken toolmaker. This he named 'Stratton & Co'.

Within a short period, Stratton & Co was thriving, manufacturing gentlemen's jewellery; ladies' compacts; a variety of small metal products and a range of DIY kits including ships, aircraft, seagrass stools and wooden bead mats.

In 1920, GAL sold the major part of his interest in Strattons to Jarrett & Rainsford, at the same time acquiring a substantial shareholding, the firm thus

becoming 'Jarrett, Rainsford and Laughton Ltd', with Stratton as the parent company.

Only a few years later, however, occurred one of those events which shook society and could have been the death knell of the business – there was a change in ladies fashions. Hemlines rose to unprecedented heights, hair was cropped, shingled and bobbed; and the plant at JR & L, which had been manufacturing six tons of hairpins a week, came to a standstill almost overnight. Diversification was obviously necessary and the solution was provided by George Stratton Laughton, GAL's eldest son, who suggested the manufacture of wireless components.

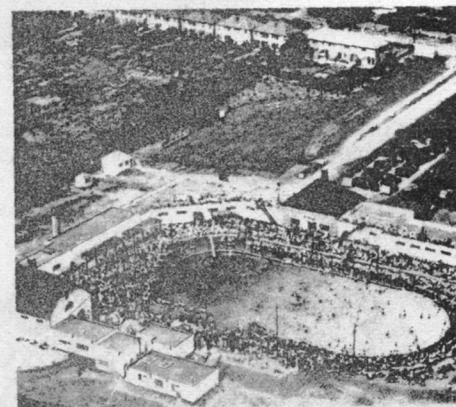
This proved a wise choice, for at the time not only was the hobby of amateur radio rapidly gaining popularity, but radio was also an official communications medium and the recently formed British Broadcasting Company had commenced transmitting mass entertainment. The new wireless business was concentrated at the Balmoral Works in Bromsgrove Street, Birmingham, under the trade name of 'Eddystone', whilst the manufacture of fancy goods was taken over by the parent company.

The first four years saw the company establish itself, not only in components but also as a manufacturer of receivers, the first being the 'Eddystone Twin', a two valve equipment mounted in an oak cabinet with a plate-glass front panel.

In 1924, Strattons opened Webbs Radio, which was intended to be the first of a chain of retail radio shops. In the event, however, only five were opened and the last closed its doors in the mid-1960s.

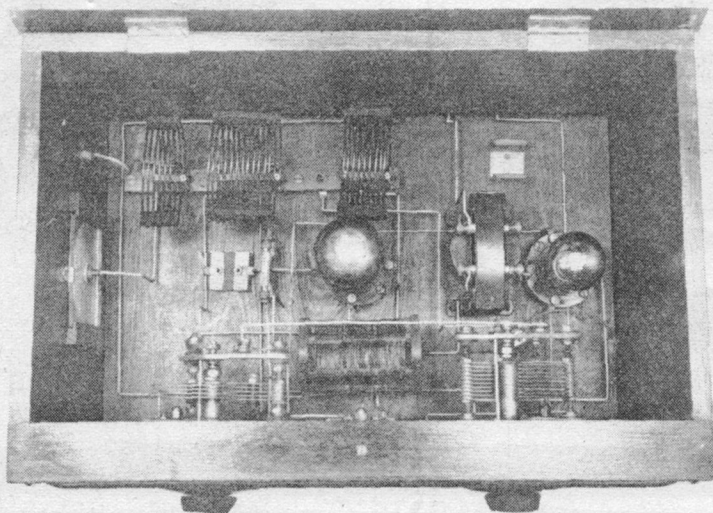


All that was left of the Eddystone works after the November, 1948, bombing - the event which caused the move to 'The Bath Tub'

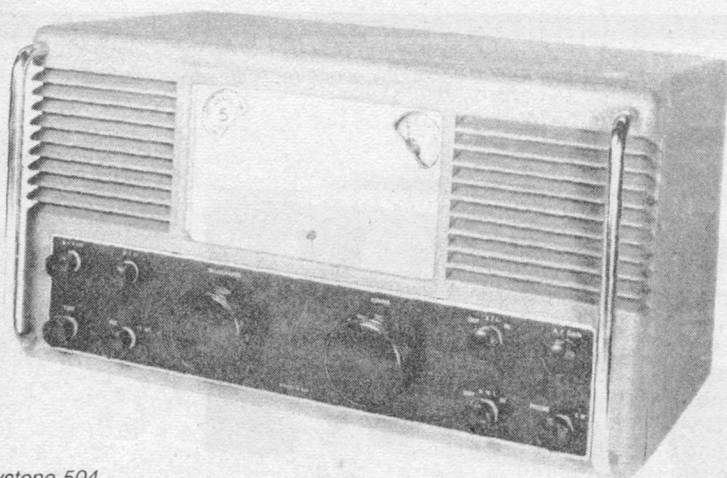


An aerial view of West Heath Lido (The Bath Tub) before the war and before it became the home of Eddystone Radio

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Top view of an Eddystone two valve receiver of 1928. In this, the right hand capacitor is the 'reaction' control, whilst the tuning is on the left. Between these, on the panel is the filament voltage rheostat and behind it is the RF choke in the selector plate circuit. The three plug-in coils towards the rear of the cabinet are: (l. to r.) aerial, grid and reaction



The Eddystone 504

Short Wave Two

By 1927, GAL had realised that the future lay in the development of equipment for the higher frequencies which were, at that time, almost unused. This led to the first Eddystone HF receiver – the 'Short Wave Two'.

Using plug-in coils, this covered the waveband from 15 to 85 metres and was the only commercially available equipment capable of receiving the recently introduced BBC Short Wave Service. In consequence, this found immediate success with both short wave listeners and Britons living overseas. It was also used by commercial concerns, principally public works constructors and overseas administrations.

The 'Short Wave Two' was followed by the 'Scientific Three' and the 'Scientific Four', these being among the first to use the newly developed screen grid valve.

During the thirties a host of new models was introduced – the 'Kilodyne

Four', the 'Sphinx' and the 'ERA Seven', to name but a few. In particular, the 'All Wave' and 'All World' series gained an excellent reputation for ruggedness and reliability. It is on record that one 'All Wave Two' fell overboard during an Arctic expedition, yet needed only drying out before being returned to service, apparently none the worse for its dousing.

During the 1930s, Eddystone developed a work pattern which would make a modern efficiency expert blanche – each receiver was built from start to finish by the same man. This gave a degree of job satisfaction almost unknown today.

Another notable project of the 1930s was the development of transmitters and receivers working on the then almost unimaginable frequency of 60MHz. The first walkie-talkies in the world, developed for the Oxford University Everest Expedition, operated on this

frequency and gave a range of 5-6 miles.

During this period, much effort was expended on the development of 60MHz two-way vehicle equipment which culminated, in 1938, with a contract to supply the Metropolitan Police Authority with equipment for communicating with all their stations. The installation was completed just before the outbreak of war and this order was followed by others from several other police authorities.

The war years

At the outbreak of war, many of the Eddystone engineers left to serve in HM Forces; however, the full impact of hostilities was not felt until the 24th October 1940 when, during an air raid, an oil bomb fell on the Eddystone Works. The building quickly caught alight, but staff on fire-watching duty managed to save almost all the technical equipment. This was transferred to Globe Works, another section of the JR & L Organisation some two hundred yards away, and production was gradually resumed. Only a few weeks later, a combination of high explosive and oil bombs fell on and totally destroyed Globe Works, the only equipment saved being two signal generators, a beat frequency oscillator and a 'Q'-meter.

The products of both Stratton and its parent company were important to the war effort and consequently no time was lost in searching for new premises. The very next day they took over the Lido at West Heath on the outskirts of Birmingham.

Pre-war, this had been an entertainment complex containing a fun fair, dance hall, swimming pool and chalets and was known to the local population as 'The Bath Tub'. In these premises, Stratton was allocated the ladies changing rooms and the ballroom. The latter was still as it had been left from the last pre-war dance, with ashtrays full and dirty coffee cups still on the tables, but to make up for this – a bar with drinks!

Stupendous efforts were made by staff and within three months 358X receivers were again rolling off the production line. These receivers were important on two counts: first because they were the first Eddystone professional receivers and second, because the only comparable equipment was manufactured in the United States and, due to U-Boat activities, supplies were unpredictable.

By the end of the war, Strattons had supplied to the Police and Armed Services over 4,500 transmitters, 7,250 receivers, 45,000 supplementary pieces of equipment and over 4.5 million components.

Post-war

In the years succeeding the end of hostilities, markets were at a low ebb. The armed services were placing very few orders and the availability of high quality, ex-service equipment at giveaway prices seriously depressed both the home and export markets. Despite this situation, policies had to be decided

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The Model 1590 of the late 1970s



Introduced in 1979, the 1837/2 communications receiver which covered from LF to 30MHz



The latest state-of-the-art receiver from Eddystone - the 1650

for the future. Among these was the decision to withdraw from the two-way communication field and concentrate on high quality professional receiving equipment.

This policy has been extremely successful and many of the products are also well known to the radio amateur fraternity. Starting from the model 504 of 1948, quickly followed by the 640, a steady stream of new models, each greatly prized by amateur and professional alike, came from the Eddystone production lines. Only in the late 1960s did this dwindle in the face of the strong competition from the Orient.

The mark that these receivers made in the professional field is evidenced by the fact that even quite recently the author has seen Eddystone 750s and 880s still in daily professional use as far apart as Sarawak, Singapore, the Caribbean and

Central Africa.

The company also developed the 770R and 770U, which for many years were the only professional, continuously-tuned VHF receivers available and which, in consequence, captured a worldwide market. Other models were designed for shipborne use, both as cabin receivers and in the radio room.

In 1965 the long association between Strattons and its parent company (now called Laughton & Sons Ltd with GAL himself in the chair) came to an end. Strattons was sold to the Marconi Company and at the same time it also seemed appropriate to rename the company 'Eddystone Radio Ltd'.

The last major milestone was in 1973 when the company manufactured its last valve receiver. This was not for lack of demand, but because it was no longer possible to obtain many of the necessary

components.

Although rarely seen now on the amateur market, Eddystone still produce a range of high quality communications receivers, the most recent being the Model 1650 which is a high grade professional equipment covering a frequency range of 10KHz to 30MHz and the Model 1995, a VHF/UHF receiver which comes in two versions: one covering 20-470MHz and the other 20-1000MHz.

The techniques and technologies used have changed many times since 1923, but the devotion and sense of involvement of those who work at Eddystone are as evident today as they were sixty years ago.

The author wishes to express his sincere appreciation of the assistance given by Eddystone Radio Ltd in the preparation of this article.