

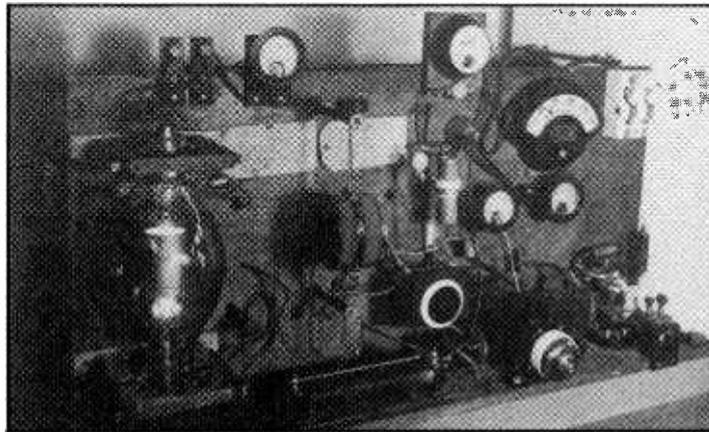
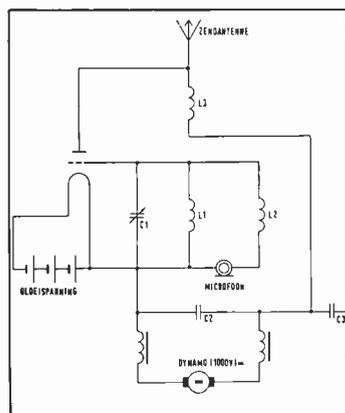
that can help to reject interference, including local electrical interference. He also highlighted the anti-fading properties of the two-section 725-ft mast radiator on which the old "Third Programme" used to go out from Droitwich.

He admitted that the UK had been slow to adopt v.h.f. radio. The classic paper by Howard Armstrong had been published in 1936 but it was not until 1954 that the service began from Wrotham, although this followed exhaustive tests not only of f.m./a.m. but also a.m.l. in which a very broad receiver response permitted the use of very effective noise limiters on pulses that had not been sharpened by a narrow i.f. This system, he considered, came very close to f.m. in performance.

## PCGG

The mention by Dr Phillips of the Hague Concerts deserves to be elaborated upon. These were organized by 35-year-old Hanso Steringa Idzerda after he obtained a licence to transmit music and voice on PCGG in The Hague. His first transmission was on November 6, 1919 after the programme of his "Radio Soiree-Musicale" had been advertised the day before in a Dutch newspaper, and the station remained in service until October, 1924. It preceded KDKA in 1920. *Wireless World* drew attention to these broadcasts in June 1920 and special concerts for

**Simplified circuit of the PCGG transmitter. The carbon microphone in series with coil L2 effects frequency modulation**



**The original PCGG transmitter as it was displayed in the Nederlands Postmuseum at The Hague, Netherlands. Not visible are the huge aerial loading coil and the rotary machines used for powering the transmitter. PCGG operated on a wavelength of 670 meters.**

English listeners were introduced.

In 1917 Idzerda, as manager of Nederlandse Radio-Industrie, had persuaded Philips to begin manufacturing radio valves which they agreed to do if he would agree to buy at least 180 valves per year. So began, early 1918, production of Philips-Ideezet "soft" valves. In the first year he sold 1200 of them. His broadcasts were intended to promote the sale of his receivers. Later it is believed he quarrelled with Philips, though he had initiated their entry into valve manufacture.

The Dutch claim PCGG as the world's first broadcast transmitter, though this tends to be disputed by the Belgians, and there was also Prof. Fessenden's Christmas Eve "broadcast" in 1906.

PCGG actually employed a form of narrowband frequency modulation on 670 metres, being received best with the receiver slightly detuned.

In 1940 the original transmitter was donated to the Dutch Postmuseum where for many years it was regularly demonstrated on dummy load and is still located.

Hanso Idzerda, unhappily, was arrested by the Germans on 3 November 1944, found in possession of radio equipment, (and may have been involved in the clandestine Dutch radio service) and shot without trial at Wassenaar.

My thanks to Dick Rollema, PAOSE, for much of this information.

## CH radar

Adding to the excellent series of papers presented last year at the three-day IEE seminar to mark the 50th anniversary of British radar, readers may wish to note several special articles in *The GEC Journal of Research* (Vol 3, No 2, 1985). These include a detailed account by B.T. Neale "CH — the first operational radar" providing technical and operational details of the 25MHz Chain Home with its transmitters built by Metropolitan-Vickers and receivers by A.C. Cossor Ltd to TRE specification.

W.E. Willshaw describes the evolution of the microwave magnetrons to which Eric Megaw of the GEC Research laboratories and Gutton of SFR, Paris contributed significantly. The account by Willshaw is one of the most detailed accounts of this major UK development by Boot and Randall.

## Amateur Radio

### Awards

RSGB awards this year did reflect some genuine experimental work. Roy Jones, G3NKL received the Mullard Award for some careful observations of 10GHz signals

over obstructed paths in which he found interesting signal enhancements just after sunset and just before dawn.

Ray Cracknell, G2AHU (former ZE2JV) received the Wortley Talbot trophy and an ARRL award for technical excellence. As one of the pioneers whose detailed observations led to a better understanding of trans-equatorial propagation, since his return to the UK he has continued his studies of 50MHz propagation. It may be recalled that he had the greatest difficulty in persuading the Radio Regulatory Department to renew his British licence without having to retake the examinations!

There appears to be a good chance that the new 50.0 to 50.5MHz band will be released on a 24-hour basis to UK amateurs about February 1986. It is clear, however, that DTI are undertaking a major revision of the terms of the amateur licence.

A Raynet Trophy was presented to Staffordshire amateurs who had helped organize emergency communications with Mexico after the recent earthquake.

### In brief

Arthur Watts, G6UN, who died recently aged 91 was a World War I member of the Royal Navy Intelligence Department and, as president of the RSGB in 1939, was responsible for the recruitment of several hundred pre-war radio amateurs as Voluntary Interceptors of the Radio Security Service (MI5) working under Lord Sandhurst . . . During June 1985 a new world record for a tropospheric contact on 430MHz was established between KH6HME, Hawaii and a station near San Francisco. On 1296MHz KH6HME worked N6CA in Los Angeles. Both distances exceed 4000km over the Pacific path that appears to support v.h.f. and u.h.f. signals at intervals of several years . . . The ARRL has proposed a band plan for 24MHz as follows: 24.89 to 24.92MHz c.w. only. 24.92 to 24.93 c.w./digital. 24.93 to 24.99MHz s.s.b./s.s.tv.