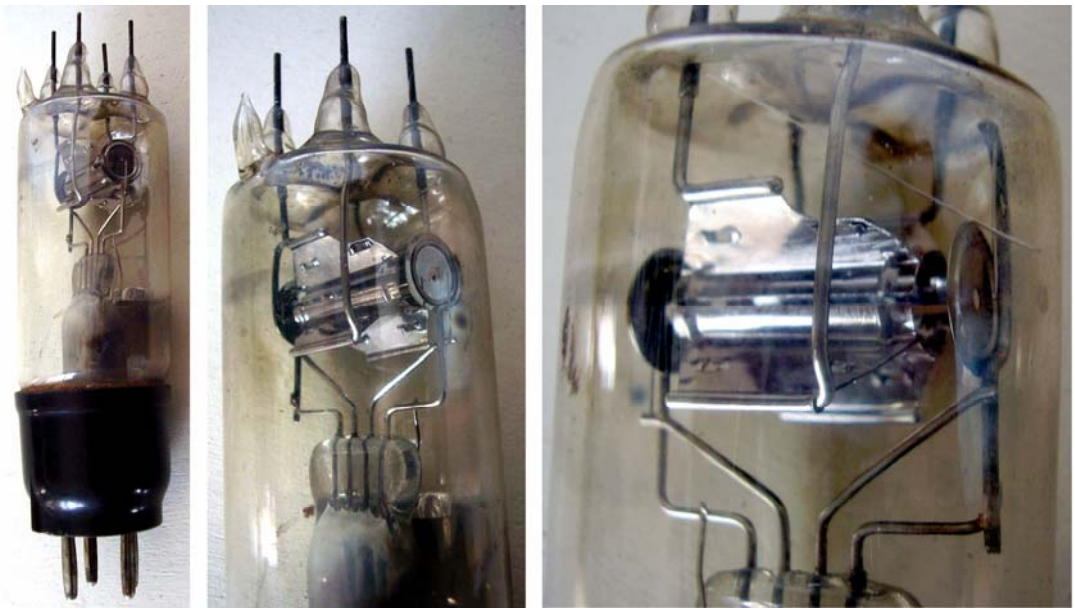
GEC E880 Lab Prototype # 1



This sample appears to be a laboratory prototype of the GEC E880, approved as NT75. Split-anode four-segment type, in accordance with the trend of the mid-1930s proposed by Posthumus of Philips and widely accepted in Europe. Each segment is rigidly supported by one of the four top pins and together they form a cylinder approximately 15 mm long and 7.5 mm in diameter.

The electrode structure, the base and top pins and the same bulb are identical to those of the NT75. Probably this sample was used by Megaw to define the filamentary cathode working parameters. The E880 / NT75 was rated for about 20 W output power and Megaw was well aware of the back-bombardment effect in these devices, which had to be counteracted reducing the filament voltage after the oscillation ramp-up, in order to prevent harmful filament overheating.

See also the other GEC E880 prototypes in the collection.

*** The development of the magnetron and of the entire ship-to-ship secure communication set for which the E880 was designed is described by the same Megaw in the papers of the International Congress held in Rome in 1947 on the 50th anniversary of the discovery of the radio by Marconi.**