## TUNED IN

**Ken Taylor**, Museum volunteer and member of Oxford and District Amateur Radio Society (ODARS), explores how objects in the Marconi Collection worked.



## **Coherer Receiver**



Maker: Guglielmo Marconi Origin: England Date Created: 1896 Provenance: Presented by the Marconi Corporation Materials: Steel, teak, brass, glass, mahogany?, ivory, assorted metals Inv: 86390

This mysterious black box was used in Marconi's famous 1896 Toynbee Hall demonstration in London.

The circuitry consisted of a modified Branly coherer connected in series with a battery and the solenoid of a sensitive  $2000\Omega$  Post Office relay (the brass cylinder to the left of the coherer).



Coherer Receiver (Inv: 86390)



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The relay contact was in series with a secondary circuit comprising a battery, bell and tapper to "de-cohere" the detector.

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When a signal from the oscillator was detected, the coherer would switch to its low impedance mode and activate the relay.

In turn, the hammers of the bell and tapper would activate, providing both an audio indication and resetting the coherer, ready for the next Morse character.



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Publicity photo of Marconi and his spark-gap transmitter and receiver, 1897