

## COLLECTING WIRELESS ARTIFACTS IN BRAZIL

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For historical evaluation, the evolution of electronics can be divided into two main eras: before and after the arrival of thermionics. The first period relates to communication by (1) conduction (telegraph-telephone) and (2) electromagnetic radiation (wireless telegraphy), neither involving the use of use of amplifiers. The second period is based on the technology of the de Forest Audion.

For the collector and historian, both those chapters of history are strongly interesting. Early wireless communication gains attraction considering such aspects as the status of scientific theory, the talents of the pioneer inventors, or even chance events of history.

In Brazil, the situation is no different, but there is a scarcity of such artifacts as telegraph keys, spark-gap devices, Leyden jars, crystal sets, etc.

Where does one find such potential museum pieces? Well, locating them is an odd and chancy process: through auctions, antique stores, flea markets, old radio repair shops, and, with luck, Aunt Mary's attic. Another profitable source is old school inventories.

A collection can be organized various ways. A very suitable one is classifying antique artifacts according to the scientific and technical principles of their operation.

The following pictures illustrate some interesting aspects of starting a collection of artifacts from the early days of electronics. For the purposes of a practical historical guide, they are arranged in sequence, considering the major scientific and technological stages of early wireless communication.

Author's thanks to Guy Lietard and Edison de Freitas for letting him use and photograph several antique wireless items from their well organized collections.

### REFERENCES

Hill, Jonathan, Radio!, Radio!, Sunshine Press, Bampton, Devon, England, 1986.

Phillips, V. J., Early Radio Wave Detectors, Peter Peregrinus Ltd., London, 1980.

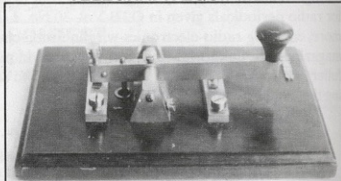
The editors of Electronics, An Age of Innovation, The World of Electronics 1930-2000, McGraw-Hill, 1981.

Edwards, K. E., Radios That Work for Free, Hope & Allen Publishing Co, 1977.

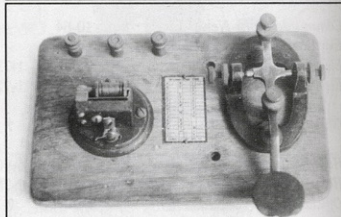
"Radio Enters the Home," RCA catalog reproduction by Vestal Press.

Hazequ, H. A. G., 50 Years of Electronic Components 1921-1971, N. V. Philips Gloelampenfabrieken, Eindhoven, Holland, 1971.

### TELEGRAPH EQUIPMENT

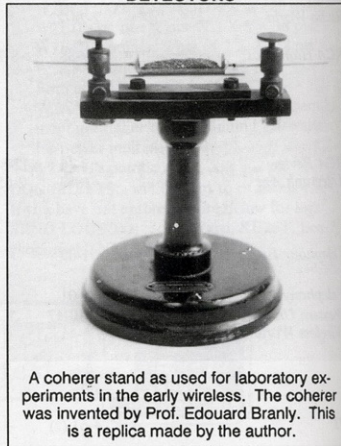


A European-type telegraph key found in a junkyard and restored by the author.

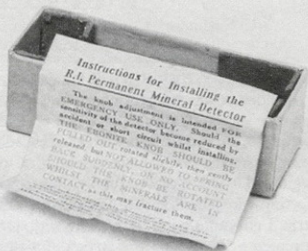


A Morse code learner's set from the early Twenties, popular among young amateurs. Made by the Signal Electric Company.

### EARLY HERTZIAN OR RADIO-WAVE DETECTORS



A coherer stand as used for laboratory experiments in the early wireless. The coherer was invented by Prof. Edouard Branly. This is a replica made by the author.

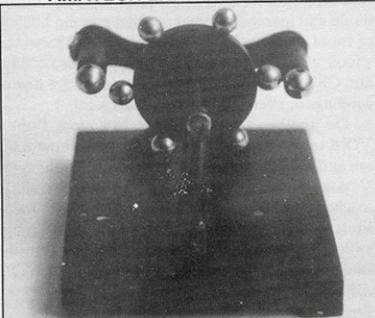


English P. M. ("permanent mineral") detector, new in the box.

### AMATEUR EXPERIMENTATION



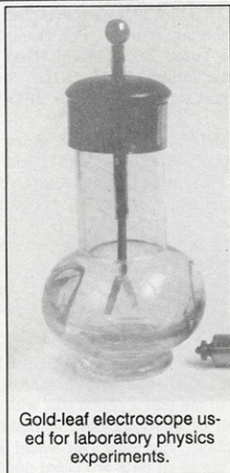
An Italian plug-in galena unit, Detector A Martelleto ("little hammer" or "cat's whisker"), articulo (part no.) 800, ca. 1927.



Small rotary spark gap - part of a teaching-aid kit called "School of Frictional Electricity" made in England ca. 1900.



Material for making crystal sets. The book La Réception sur Galène de la Téléphonie sans Fil et des Radio-Concerts ("Reception of Wireless Telephony and Radio Concerts on Galena") was printed in France ca. 1921.



Gold-leaf electroscope used for laboratory physics experiments.