

As time elapsed, a more effective and less expensive method was daily becoming more and more imperative. Finally in 1896 the world witnessed the wonders of wireless telegraphy, to be followed in 1914 by its associate, Radio. Wireless telegraphy and radio are very closely related; radio being an outgrowth of its predecessor. A study of the history of radio cannot be complete without some knowledge of its ancestor.

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The possibility of wireless telegraphy appears to have been recognized by a Spanish Physicist, Salva, in 1795, who supported the theory that water could be utilized as a conductor for an electric current. In the early part of the 19th century, Steinheil of Munich, accidentally discovered that the ground could be used as a conductor for a return current. Morse, by modifying these systems, succeeded in establishing communication for a distance of one mile. This was the first advancement towards wireless telegraphy and radio.

While these things were being accomplished some noteworthy experiments were being performed in England by Preece and Maxwell. Preece by placing a length of wire along the coast and a parallel one upon a neighboring island, succeeded by means of an induction coil and telegraph-key in transmitting signals between points four miles apart. This was the first use of the induction method, based on the principle that a varying current in one wire, tends to cause similar variations in a neighboring parallel wire.

In 1845 Faraday brought forth his theory of "Electromagnetic Origin of Light", which was mathematically proved correct by Maxwell in 1864. This was immediately followed by the outstanding experiments of Hertz, which not only proved Faraday's theory, but also showed how electric waves were produced, and when produced how to detect them.

In 1896 Guglielmo Marconi put into practical use the principles upheld by Faraday and succeeded in transmitting signals over a distance of one and three-quarters miles. By perseverance and numerous experiments Marconi improved his system of wireless telegraphy. Gradually the distances were increased until December 12th, 1901, when the letter "S" was received by Marconi at St. John's, Newfoundland, from Poldu, England, a distance of eighteen hundred miles. In 1904 the first press message was transmitted across the Atlantic. Truly man had now conquered space, but this was only the beginning of that international invention known as Radio.