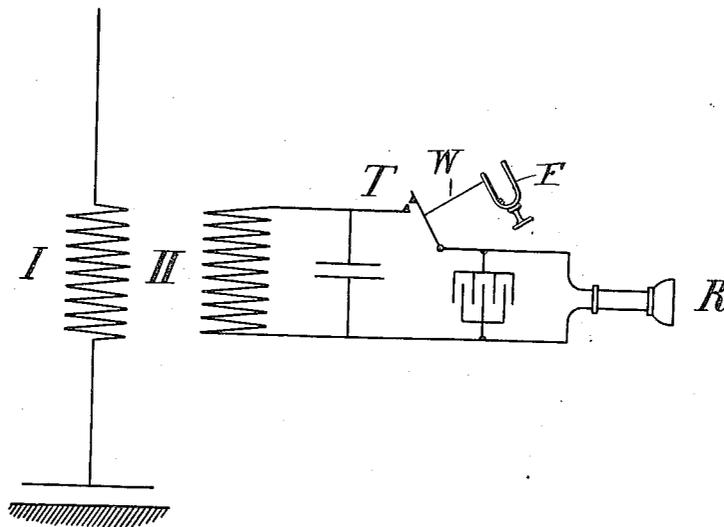


V. POULSEN.
RECEIVER FOR WIRELESS TRANSMISSION OF SIGNALS.
APPLICATION FILED OCT. 22, 1907.

961,645.

Patented June 14, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

VALDEMAR POULSEN, OF COPENHAGEN, DENMARK.

RECEIVER FOR WIRELESS TRANSMISSION OF SIGNALS.

961,645.

Specification of Letters Patent. Patented June 14, 1910.

Application filed October 22, 1907. Serial No. 398,619.

To all whom it may concern:

Be it known that I, VALDEMAR POULSEN, a subject of the King of Denmark, residing at Copenhagen, Denmark, have invented certain new and useful Improvements in Receivers for Wireless Transmission of Signals, of which the following is a full, clear, and exact description.

This invention relates to an arrangement for receiving wireless signals, by which a purely electro-magnetic apparatus, for instance a telephone, is intermittently connected to and disconnected from an oscillation circuit.

The invention has for its object to provide an apparatus by which the electrical oscillations are made to act directly upon the electro-magnetic apparatus, viz. a telephone receiver or relay, to produce sound directly from the energy of the high frequency oscillations.

In the drawing, in which an embodiment of the invention is shown, I denotes the aerial circuit, and II denotes the oscillation circuit connected thereto.

T is an interrupter which vibrates to open and close its circuit by any mechanical connection. The interrupter may be vibrated by any suitable means, as for example, by a tuning fork F which may be connected to the interrupter by a rod or wire W.

R designates a telephone receiver.

In operation the oscillations in circuit I produce corresponding oscillations in II. During the period that the interrupter T is opened, the oscillation circuit II has an exact oscillation period and does not exert any appreciable dampening effect. If the

oscillations in circuit I are continuous and the oscillations in circuit II are in perfect resonance, the latter will attain a fairly high current intensity. At this time the circuit through the telephone or relay R is closed, and the comparatively heavy currents are sufficient to actuate the telephone or relay direct, notwithstanding the fact that they are high frequency in character.

It is evident that the construction specified cannot work safely in the case of discontinuous waves because at a time when no waves are being radiated, the interrupter connects the electro-magnetic apparatus to use the oscillation circuit, then the apparatus cannot operate.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. An arrangement for receiving of signals transmitted by means of rapid electric oscillations comprising an oscillation circuit, an electro-magnetic apparatus, and a device for intermittently connecting and disconnecting the said apparatus to and from the oscillation circuit.

2. An arrangement for receiving of signals transmitted by means of rapid electric oscillations comprising an oscillation circuit, a telephone, and a device for intermittently connecting and disconnecting the said telephone to and from the oscillation circuit.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

VALDEMAR POULSEN.

Witnesses:

CECIL VILHELM SCHON,
VIGGO BLOM.