

H. SHOEMAKER.
RECEIVING APPARATUS.
APPLICATION FILED APR. 28, 1905.

932,913.

Patented Aug. 31, 1909.

Fig. 1.

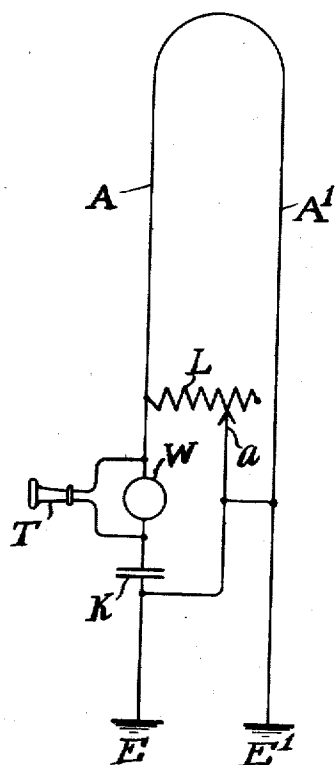
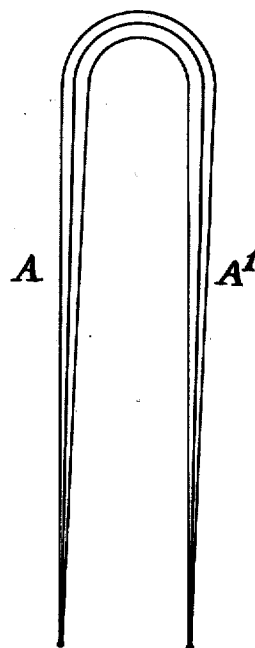


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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RECEIVING APPARATUS.

932,913.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed April 28, 1905. Serial No. 257,334.

To all whom it may concern:

Be it known that I, HARRY SHOEMAKER, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Receiving Apparatus, of which the following is a specification.

My invention relates to the apparatus employed at a receiving station of a signaling system wherein the signals or messages are represented during transmission by electro-radiant energy, as electro-magnetic waves or Hertzian waves.

The object of my invention is to provide receiving apparatus which shall be highly selective of the electro-radiant energy emitted at a certain transmitting station or stations, to the exclusion of other electro-radiant energy which may be in existence at the same time.

My invention resides in circuit arrangements and disposition of parts hereinafter described and pointed out in the claims.

For an illustration of one of the forms my invention may take, reference is to be had to the accompanying drawing, in which:

Figure 1 is a diagrammatic view of the circuits of receiving apparatus for procuring selectivity. Fig. 2 illustrates a looped aerial conductor of a plurality of wires or conductors.

In Fig. 1, A and A' constitute a looped aerial conductor. Between A and the earth connection E are connected the wave-responsive device W and the condenser K. In shunt to the wave-responsive device W is connected the telephone receiver or other device T as hereafter described. The leg A' is shown as connected directly to earth at E'. An inductance or length of conductor L is joined at its one end to the base of the leg A and has its other end free. The rider a adjusts the amount of conductor or inductance L in the local circuit formed by the wave-responsive device W, inductance L, and the condenser K. The rider a is also connected to the leg A'. Obviously the earth connection E' may be omitted, and the single earth connection E employed. By suitably adjusting the rider a the apparatus becomes highly selective of the electro-

radiant energy intended to be received by that station to the exclusion of other electro-radiant energy which may simultaneously exist.

As shown in Fig. 1, no local battery is employed, the detector W being a primary cell detector or other detector requiring no local battery. If a wave-responsive device of a type requiring a local battery is employed, such local battery would be included in or associated with the shunt circuit including the telephone receiver or other device T.

In Fig. 2 the looped aerial conductor is shown as consisting of the legs A and A' each consisting of a plurality of wires or conductors.

What I claim is:

1. In receiving apparatus, a looped aerial conductor, a wave-responsive device connected in one leg of the loop, an adjustable inductance bridging the legs of the loop, a condenser connected with said wave-responsive device and said inductance in a closed local circuit, and a signal reproducing means controlled by said wave-responsive device.

2. In receiving apparatus, a looped aerial conductor, an adjustable inductance bridging the legs of the loop, a wave-responsive device connected in a circuit in shunt to said inductance and in a leg of the loop, and a signal reproducing means controlled by said wave-responsive device.

3. In receiving apparatus, a looped aerial conductor, an adjustable inductance having one terminal directly connected with one leg and the other terminal directly connected with the other leg of the loop, and a circuit in shunt to said inductance including a wave-responsive device.

4. In receiving apparatus, a looped aerial conductor, a wave-responsive device connected between one leg of the loop and earth, a connection from the other leg of the loop to earth, and an adjustable inductance bridged across the legs of said loop approximate their lower ends.

5. In receiving apparatus, a looped aerial conductor, a wave-responsive device and condenser serially connected between a leg of said loop and earth, a connection from

the other leg of said loop to earth, and an adjustable inductance bridged across the legs of said loop approximate their lower ends.

6. In receiving apparatus, a looped aerial conductor, a wave-responsive device connected between one leg of the loop and earth,

and an adjustable inductance bridged directly across the legs of said loop.

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Witnesses:

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