

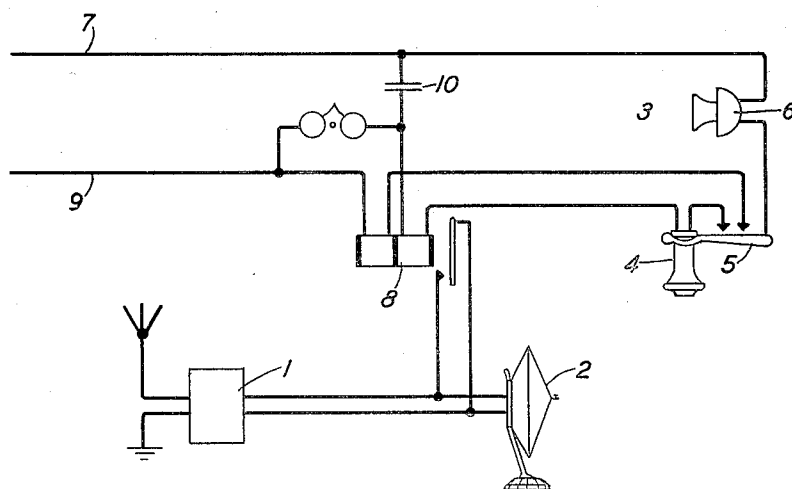
May 16, 1933.

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1,909,843

COMMUNICATING SYSTEM

Filed Jan. 27, 1931



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COMMUNICATING SYSTEM

Application filed January 27, 1931. Serial No. 511,502.

This invention relates to communicating systems and particularly to systems combining both telephone and radio service and its object is to prevent the radio set from interfering with the use of the telephone.

Radio sets in operation often disturb the user of a telephone, and the telephone conversation often has to be interrupted while the radio set is being silenced. Heretofore systems have been provided to overcome these inconveniences, whereby a subscriber by lifting the receiver off its support causes means to be automatically operated to silence the radio set. It is a feature of this invention to provide a system of this kind in which the induction coil of the subscriber's telephone set is replaced by a combined induction coil and relay. This device functions as an induction coil, and, in addition, is held operated by the transmitter current from the central office flowing through its windings when the subscriber removes his receiver from the switchhook. The device thus acts as a relay and closes contacts which silence the radio set by short-circuiting or otherwise disabling the loud speaker.

This invention has been illustrated in the accompanying drawing in which 1 represents a radio set, 2 a loud speaker and at 3 is shown a subscriber's telephone set.

The operation of the system is as follows: When the subscriber removes the receiver 4 from the switchhook 5, a circuit is completed from ground at a central office (not shown) through the tip conductor 7, transmitter 6, switchhook 5, left hand winding of the relay 8 which is also acting as an induction coil, ring conductor 9 to battery at the central office. A circuit is also completed from the receiver 4, right hand winding of relay 8, condenser 10, transmitter 6, contacts of the switchhook 5 back to the receiver. Relay 8 will therefore act as an induction coil in the usual manner of standardized subscribers' telephone circuits. The circuit completed through the tip and ring conductors 7 and 9 therefore energizes the left hand winding of relay 8 to cause the attraction of the armature of this relay to close a circuit through its armature and front contact for

the short-circuiting of the loud speaker 2. If the radio set is operating at this time it will be silenced in this manner. When the subscriber replaces his receiver 4 on the switchhook 5 the circuits through the windings of relay 8 are opened and the radio set is again permitted to function.

It should be understood that while the invention has been illustrated in connection with but a single telephone circuit it may readily be applied to other circuits without departing from the spirit thereof, and that the present disclosure is merely illustrative of one application of the invention.

What is claimed is:

1. A system comprising a radio set and a telephone set, said telephone set including a relay having two windings inductively connected and an armature, circuit connections for said windings to include them as induction coil windings for said telephone set, and circuit connections for disabling the radio set controllable by said armature when the relay is actuated.

2. A system comprising a radio set and a telephone set, said telephone set including a relay having two windings inductively connected and an armature, circuit connections for said windings to include them as induction coil windings for said telephone set, and circuit connections for disabling the radio set controllable by the armature when said relay is energized, and switching means controllable by the switchhook of the telephone set for actively connecting said windings in the telephone set.

3. A system comprising a radio set and a telephone set, said telephone set including a relay having two windings inductively connected and an armature, circuit connections including one of said windings in the transmitter circuit and the other winding in the receiver circuit of the telephone set, switching means responsive to the manipulation of the telephone switchhook for controlling said circuit connections for the windings, and means controllable by said armature for disabling said radio set.

4. A system comprising a radio set and a telephone set, said telephone set including a

relay having two windings inductively connected and an armature, circuit connections including one of said windings in the transmitter circuit and the other winding in the
5 receiver circuit of the telephone set, switching means responsive to the manipulation of the telephone switchhook for opening and closing said circuit connections for said windings to include or exclude the windings
10 from their respective transmitter and receiver circuits, and means controllable by said armature for disabling said radio set.

In witness whereof, I hereunto subscribe my name, this 22 day of January, 1931.

15 EDMUND M. SQUIRE.

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