Dec. 25, 1928. 1,696,519

L. M. BOWMAN

DEVICE FOR COMMERCIAL RADIO RECEPTION AND OPERATION

Filed Sept. 29, 1926

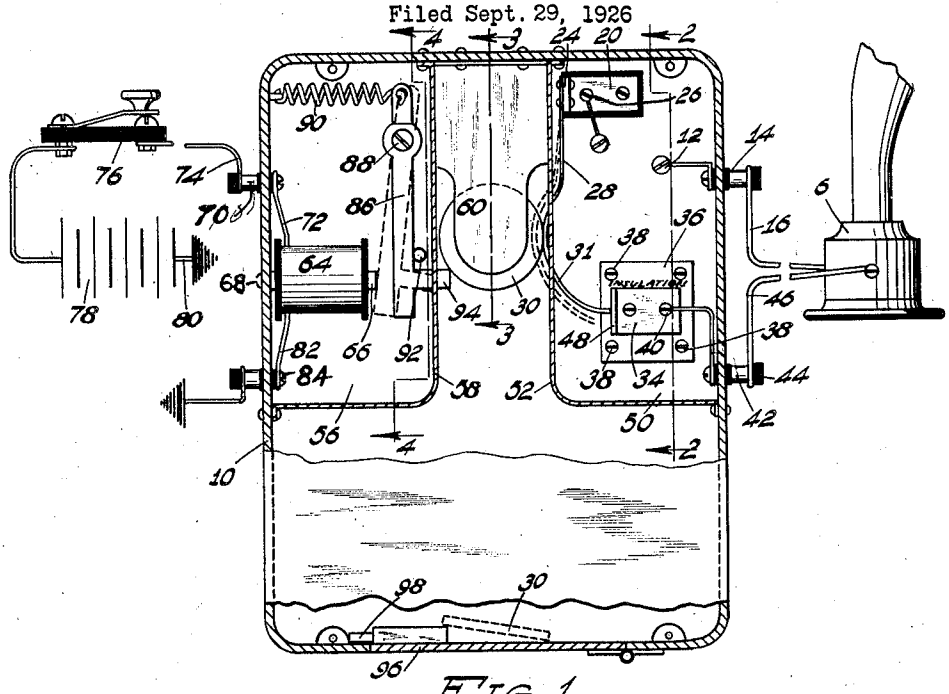

FIG. 1.

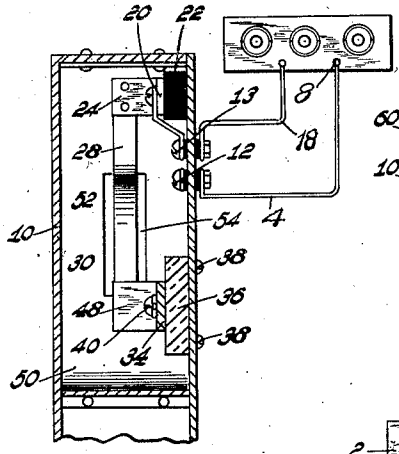

FIG. 2.

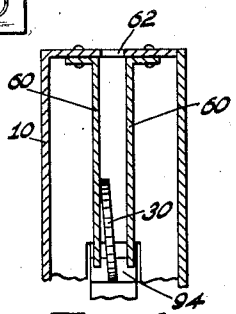

FIG. 3.

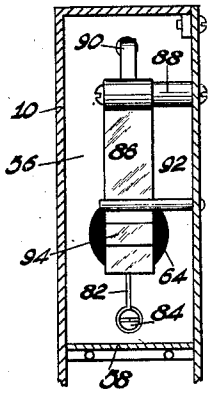

FIG. 4.

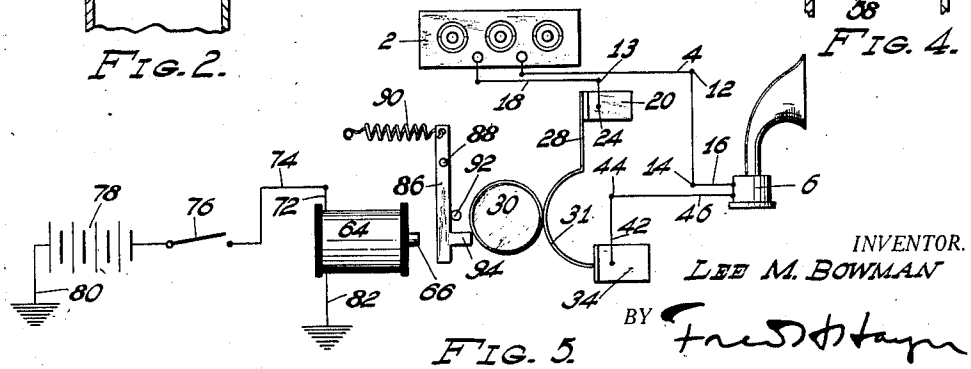

FIG. 5.

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UNITED STATES PATENT OFFICE.

LEE M. BOWMAN, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-THIRD TO JULIAN B. PRIMM, OF LOS ANGELES, CALIFORNIA, AND ONE-THIRD TO TOM L. SHEPHERD, OF LOS ANGELES, CALIFORNIA.

DEVICE FOR COMMERCIAL RADIO RECEPTION AND OPERATION.

Application filed September 29, 1926. Serial No. 138,387.

My invention relates to radio mechanism, and more particularly to a coin controlled radio mechanism whereby a master radio set is adapted to operate one or more individual subsidiary radio sets by means of a coin, means being associated with said mechanism whereby the electrical connection between said sets may be disestablished, and at the same time releasing the coin so that the subsidiary sets may not again be operated until another coin has been inserted, said invention being especially adapted for commercial use in hotels, apartment houses and the like, where the individual subsidiary sets are positioned in different rooms.

It accordingly is an object of my invention to provide a novel mechanism comprising one or more subsidiary radio sets operable from a master set, said subsidiary sets being in electrical connection with said master set by means of a pair of relatively immovable electrodes, one of which is adapted to be brought into engagement with the other by a coin controlled mechanism, means, preferably in the shape of an electromagnet, being provided whereby the coin used may be released, thereby automatically placing the subsidiary set out of commission until another coin is used.

The above and other objects and advantages, as will hereinafter more fully appear, I attain by the mechanism disclosed in the drawings and description in this specification, which form part of this application.

Reference is had to the accompanying drawings, in which similar reference characters denote similar parts. In the drawings,

Fig. 1 is a part sectional and part elevational view of my invention, partly in diagrammatic form and partly broken away to disclose the interior of a suggestive form of subsidiary radio set to be used in connection with the master radio set,

Fig. 2 is a fragmentary sectional view taken on the line 2—2, Fig. 1, looking in the direction of the arrows,

Fig. 3 is a similar view on the line 3—3, Fig. 1,

Fig. 4 is a similar view on the line 4—4, Fig. 1,

Fig. 5 is a diagrammatic view of the electric circuits.

Describing my invention more in detail, the numeral 2 indicates the master radio set having one of its leads 4 associated in any desired manner with the subsidiary radio set, 6, said lead being preferably connected to a suitable binding post 8, positioned at any convenient point in any preferred form of casing 10 in which the coin controlled, coin releasing mechanism, as well as the electrodes for operating the subsidiary radio set are positioned. From the binding post 8 the lead 4 is connected to another binding post 12 which in turn is in circuit with the post 14, a wire 16 leading to the subsidiary set 6. See Fig. 5. Of course, this manner of connecting the master set to the subsidiary set is suggestive merely, and may in practice be changed as desired, and still remain within the province of my invention.

The second electric lead 18 from the master set 2 is in electric circuit with a plate or other device 20, insulated at 22 from the casing 10, as seen more particularly in Fig. 2, said lead 18 being connected to a binding post 24, which with the fastening means 26, also forms a means of securing the plate or other device 20 to the casing 10. It will be understood, however, that the precise form this feature takes in practice is immaterial.

The plate or other device 20 also serves as a support for the movable electrode 28, which electrode may be associated with the plate 20 in any manner desired, and preferably is in the form of a curved spring-like or resilient member, having its curved portion 31 of such a shape that it will engage the coin 30 to assist in holding the same in position, and at the same time establishing electrical connection with the stationary electrode 34 insulated at 36 from the casing 10, any preferred form of securing means 38 being used to hold said electrode and insulating means in position on said casing.

The stationary electrode 34 has associated therewith a binding post 40 having a wire 42 connected to another binding post 44, to which is connected the wire 46 leading to the subsidiary radio set 6. It will be understood also that these connections are suggestive merely, and may in practice be changed as desired. The stationary electrode 34 is also equipped with a portion 48, preferably of bent-over form to engage the movable electrode 28 at the end of its curved portion 31. Any desired form of conductive and insulating material may be used. The character of

the binding posts, with insulator is also immaterial, it being understood that the electric leads are all insulated from the casing 10, except where grounds are needed.

If desired, the plate 20 and the stationary electrode 34 may be positioned within a separate compartment 50, defined by the partition 52, a slot 54 (Fig. 2) being formed in said partition in which the curved portion 31 of the movable electrode 28 moves, as seen more particularly in Figs. 1 and 2. The compartment 50, as well as the compartment 56, presently to be described, assist as a guiding means for the coin 30, said compartment being defined by a partition 58. Both partitions may be associated with the casing 10 in any manner desired, or both may be omitted. If preferred also, a coin guiding means 60 of any desired character may be provided so that the coin 30 may be accurately positioned to cause the electrodes 28 and 34 to make contact, said guiding means being associated with the casing 10 in any manner preferred, the coin slot 62 (Fig. 3) permitting the inserting of the coin.

Positioned in the compartment 56 is the combined electromagnetic means for releasing and holding the coin 30 in position, said means functioning to coact with the curved portion 31 to maintain electrical contact between the electrodes 28 and 34. The electromagnetic means comprises a solenoid 64 having its core 66 positioned therein, a securing means 68 being used for positioning said solenoid on the casing 10. A binding post 70 to which is secured the wire 72 leading to the solenoid 64, has also connected thereto the lead 74 in circuit with an interrupting means in the shape of a switch, push button or the like 76, which circuit interrupting means is in circuit with a battery 78, either that of the master radio set or any other, which battery is grounded at 80, the wire 82 being grounded on the casing 10 by means of the post 84 or otherwise.

The armature for the solenoid 64 is indicated at 86, and preferably comprises a pivoted lever, pivoted at 88, and has associated therewith the resilient retarding member 90, in the shape of a coil or other spring, a stop 92 being provided on the casing 10 to limit the movement of said armature, which armature is also equipped with a coin engaging projection 94. The casing 10 may be provided with a door 96, preferably locked as at 98, whereby the casing may be removed. It will be obvious also that any other preferred coin removing means may be provided.

The operation of my invention should now be clear. A coin 30, or check of some sort, being inserted in the slot 62, said coin or check is guided by the member 60 so that it is positioned accurately between the curved portion 31 and the ledge or projection 94 of the armature 86, the end of the movable electrode 28 establishing electrical contact with the stationary electrode 34, establishing electrical connections between the leads 4 and 18 of the master radio set 2 and the leads 16 and 46 of the subsidiary radio set 6. This circuit is continuously maintained as long as the coin 31 remains in position, and the subsidiary set may be used day and night until said coin is released, which is usually done at night, after all radio operations have ceased.

To disengage the coin 30, the switch, push button or other circuit interrupting means 76 is operated by the operator of the master set, or otherwise, and the battery circuit with the solenoid 64 is established, energizing said solenoid, which attracts the armature 86, against the action of the spring 90, causing the coin 30 to be dropped in the lower portion of the casing 10, and the mechanism may not be operated until a new coin has been inserted. The value of the coin or check may be any that in practice is desired.

While I have thus described my invention with great particularity, I do not propose to be limited to the exact details of construction shown and described, but reserve the right in practice to make any and all modifications thereof that fall within the scope of the appended claims.

I claim as my invention:

1. In a radio mechanism whereby a master radio set is adapted to operate one or more individual subsidiary radio sets, a pair of electrodes for establishing an electric circuit between said master set and said subsidiary set, a set of appliances whereby a coin may coact with one of said electrodes to bring the latter into electrical contact with the other of said electrodes, and means for releasing said coin and breaking the contact between said electrodes.

2. In a subsidiary radio set adapted to be operated by a master radio set, a stationary electrode in circuit with the horn of said subsidiary set, an electric lead from said master set to said horn, a movable electrode adapted to establish an electric circuit with said stationary electrode, and coin controlled mechanism for causing said movable electrode to establish said connection.

3. The combination of a master radio set and a subsidiary radio set, a coin controlled device, comprising a casing having a coin inserting slot, a pair of stationary and movable electrodes, coin guiding means positioned between said electrodes, means on said electrodes for supporting a coin, electro-magnetic means for operating said movable electrode, electrical means in circuit with said electro-magnetic means for energizing said electro-magnetic means so said coin may be released, and means for establishing and disestablishing said electric circuit.

4. A coin controlled mechanism for operating a subsidiary radio set from a master

set, comprising a casing, said casing having a coin slot, a stationary electrode in said casing, said electrode having a curved coin engaging portion, a movable electrode juxtaposed to said stationary electrode having a coin engaging projection, and an electrical lead for connecting said stationary electrode with said subsidiary radio set, electro-magnetic means for moving said movable electrode, electrical means for energizing said electro-magnetic means, and means for establishing and disestablishing the connection between said electrical means and said electro-magnetic means.

In testimony whereof I have signed my name to this specification.

LEE M. BOWMAN.