

Sept. 3, 1935.

M. ALDEN

2,013,331

RADIO RECEIVING APPARATUS

Original Filed April 7, 1927 2 Sheets-Sheet 1

Fig. 1.

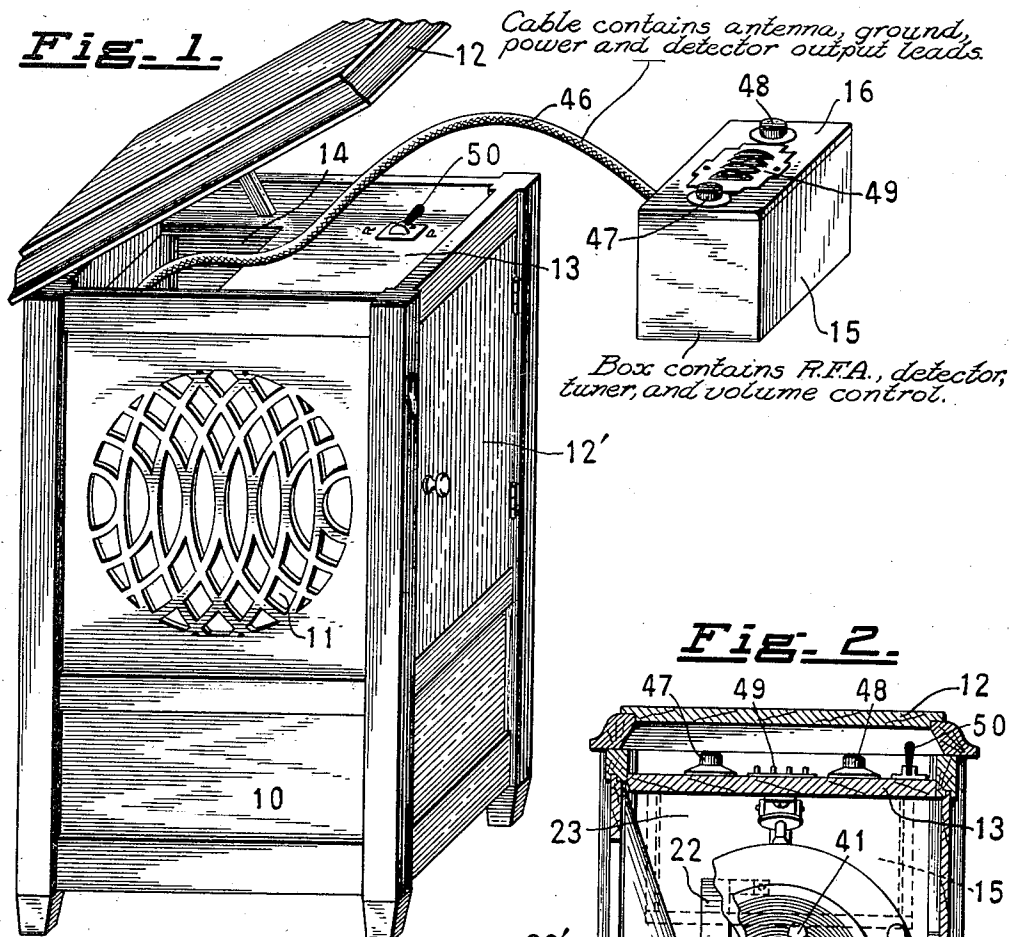
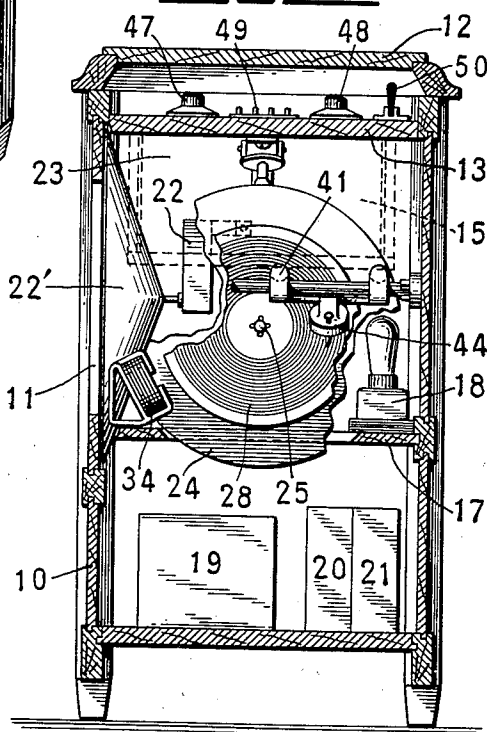


Fig. 2.



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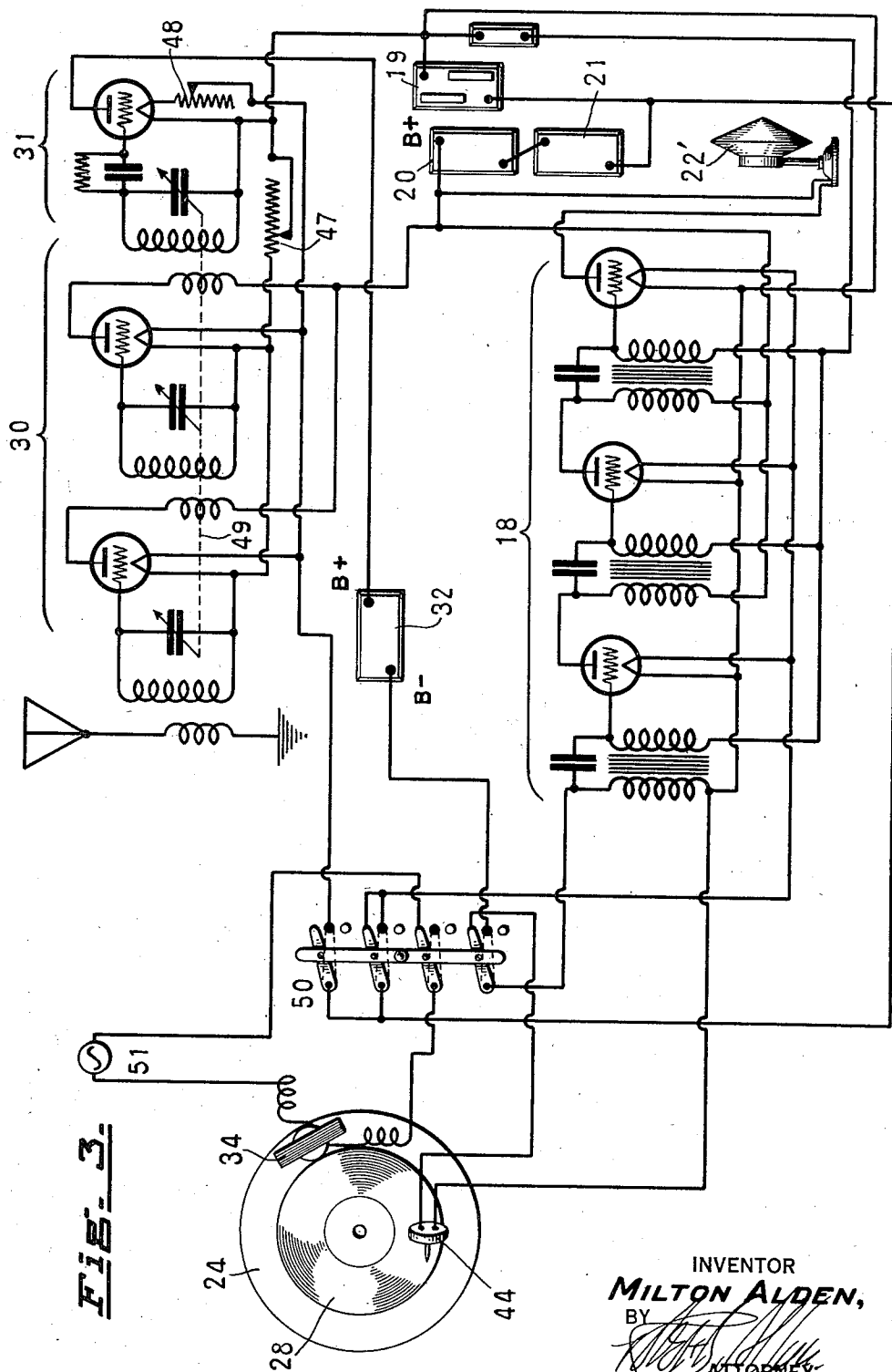
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UNITED STATES PATENT OFFICE

2,013,331

RADIO RECEIVING APPARATUS

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Original application April 7, 1927, Serial No.
181,754. Divided and this application March
31, 1932, Serial No. 602,197

1 Claim. (Cl. 250—20)

My invention as a whole contemplates a radio broadcast receiver in combination with an electrical phonograph and is claimed in my application Ser. No. 181,754 filed April 7th, 1927 which has become Patent No. 1,855,933 from which this application is a division.

The present invention relates to a construction or system in which the radio tuning elements and their associated component parts may be moved independently of the other parts of the receiver in order that the program to be received may be controlled from a distance.

The receiver as a whole consists of the combination of an electrically driven disc or turntable, a stylus-operated magnetic pick-up associated therewith, and an audio amplifier for use for the reproduction of both records and broadcast signals, all arranged in one cabinet and a portable container carrying the tuning and control elements and their associated apparatus.

I thus produce a receiver in which many of the component parts are used both for radio reception and for record reproduction thereby considerably lowering the manufacturing cost, and due to the portable feature of the tuning and control elements, the operation of the device as a radio receiver may be controlled from a distance.

Referring to the drawings, Fig. 1 is a perspective view of one embodiment of my invention, showing the radio control box removed from the cabinet.

Fig. 2 is a section and side view of the apparatus with the control box located in the cabinet.

Fig. 3 is a schematic wiring diagram showing one of many possible arrangements of the circuits.

The cabinet 10 may be of any suitable design and provided with a number of chambers or compartments. One may preferably be furnished with a loud speaker having a grill or outlet 11 at one side. An upper chamber has a hinged cover 12. The cabinet may also be provided with an inner shelf 13 having a recess or compartment 14 adapted to hold the portable tuning or control box 15.

Upon a shelf 17 in a central compartment having a door 12' may be mounted an audio frequency amplifier 18.

A chamber may be provided in the bottom of the cabinet for the power sources for the vacuum tubes, such as the cathode heating battery 19 and the anode supply batteries 20 and 21, but it should be understood that battery eliminators, motor generators, or other means of power supply may be employed.

The loud speaker movement 22 may be secured to the wall 23 of the recess or well 14 and its cone-like diaphragm 22' may be secured to or behind the outer edge of the grill 11.

The disc or turntable 24, is mounted in the central compartment upon the horizontal shaft 25 for supporting and driving the record 28. An induction motor 26 receiving current from the house current source 27 drives the disc 24.

Depending from the carriage 31 is the stylus-operated magnetic pick-up 44.

The control box 15 is connected to the cabinet 10 by a flexible cable 46 which contains all necessary leads such as antenna, ground, battery and detector out-put leads. Of course this cable may be wound on a suitable reel. This control box may contain a suitable radio frequency amplifier 33, and a detector 31 with their tuning and volume control devices which may be of any suitable type, I have shown a volume control at 47, a detector rheostat at 48, a single tuning control, indicated at 49, such as the localized control disclosed in my co-pending applications #154,689, now Patent 1,871,293, or 163,196, now Patent 1,832,175, and a plate battery 32.

A switch 50 having three positions is provided in a suitable place. In one position all current is turned off. In the phonograph operating position of the switch shown in full lines, the tubes of the audio frequency amplifier are lighted, the input to the audio frequency amplifier is connected to the phonograph pickup and the alternating current house line 27 is connected suitably to the disc driving motor 34.

In the radio operating position of the switch shown in dotted lines all the tubes in the apparatus are lit, the driving magnets 34 are disconnected, and the input of the audio frequency amplifier is connected to the portable tuning unit.

The combination of the relatively stationary main cabinet and the control portable unit makes it possible to store the heavy audio amplifier apparatus and the main power source in any convenient or out-of-the-way place and mount the much lighter radio amplifier and detector apparatus in a relatively small portable case.

It should be understood that I do not wish to limit myself to the specific embodiments of my invention, as shown and described, except insofar as I do limit myself in the following claim.

I claim:

Radio receiving apparatus comprising a source of power, audio amplifying means, a loud speaker and a separate control unit physically removed from all of the foregoing elements and connected thereto by flexible conductors and comprising radio frequency amplifying means, detector means and all means necessary to effectively tune the receiving apparatus to various differing frequencies, said flexible conductors furnishing to said separate control unit all electrical energy used thereby.

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