

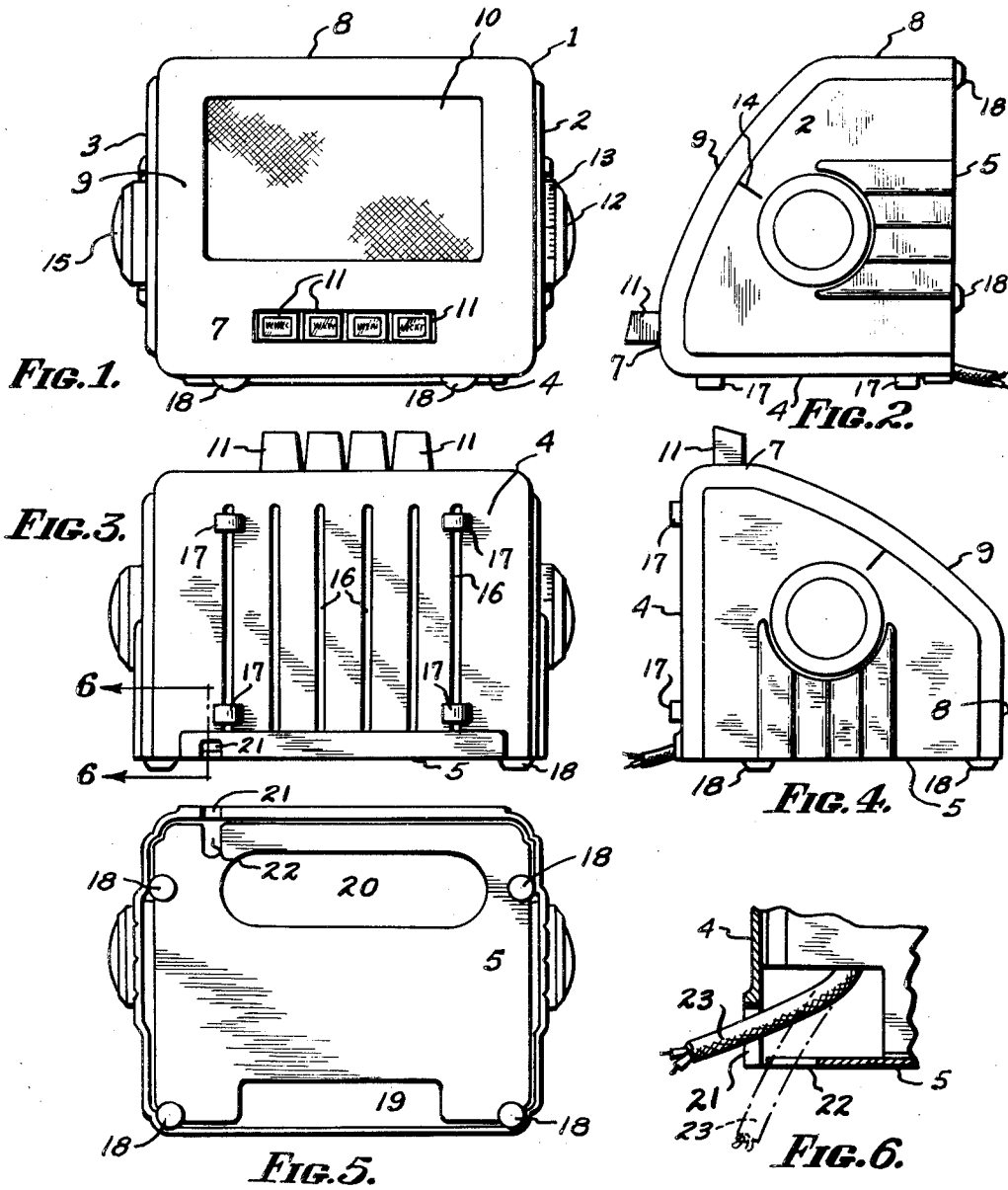
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RADIO SET

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RADIO SET

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The primary objects of my invention are the production of a radio set of the so-called table top variety which has new capabilities so far as its use under varying circumstances is concerned. Specifically, it is an object of my invention to provide a radio set which is capable of use in a variety of positions. Again, it is an object of my invention to provide a radio set in which adequate provision is made for ventilation in spite of its use in the several positions aforementioned, and also, in spite of its use with one face resting upon a horizontal support and another face brought against a wall, the back of a piece of furniture or the equivalent. Yet again it is an object of my invention to provide a radio set in which the controlling elements are readily accessible and readily available for visual inspection in a plurality of positions in which the radio set may be used. It follows from this that an object of my invention is the provision of a radio set having a new arrangement of control elements.

These and other objects of my invention which will be set forth hereinafter or will be apparent to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now set forth a specific exemplary embodiment, it being understood that what I claim herein can be embodied in other radio sets without departing from the spirit of my invention as will be clear.

Reference, therefore, is now made to the drawing wherein:

Figure 1 is a front view of a radio set resting upon one face.

Fig. 2 is an end view of the radio set in the same position.

Fig. 3 is a rear elevation of the radio set in another position.

Fig. 4 is an end elevation of the radio set in the same position as in Fig. 3.

Fig. 5 is a bottom view of the radio set when it is in the position shown in Figs. 3 and 4.

Fig. 6 is a partial sectional view taken along the lines 6—6 of Fig. 3.

In the practice of my invention, I provide (and it is an object of my invention to provide) a table top radio set of neat and attractive appearance, which radio set is adapted, when in use, to rest upon either one of two adjacent faces. Irrespective of this difference in position, the radio set provides adequate ventilation for the mechanism within, and adequate reproduction of sound; and the control elements are equally accessible both for manipulation and for inspection in each of the two positions. Moreover, provision is made for the adequate disposal of the connecting cord irrespective of the position of use of the device. Finally, by reason of the

constructions aforesaid, the radio set is perfectly adapted for use with one face resting upon a table or the like and the other face resting against a wall or back, as I have indicated above.

In the particular embodiment shown, I have eliminated from the front portions of the radio set the usual dial. Briefly, the radio set is a set having automatic tuning means whereby predetermined stations may be selected at will by the operation of suitable tuning means such as plungers. The manual tuning means for the radio set is located, in accordance with my invention, at the end of the cabinet or casing. A dial may be employed in connection with this for manual tuning; but the dial is of such character as will be visible from the front of the radio cabinet. On the opposite end of the radio cabinet I may, if desired, place a volume control or similar mechanism. In the smaller and simpler radio sets a combination volume control and switch is usually employed. It will be understood, however, additional controls may be incorporated in the radio set and preferably, though not necessary, on the end, such, for example, as a tone control.

The front or face portions of the radio set, in accordance with my invention, contain a loud speaker grill or its equivalent and the automatic tuning means. It will be understood that with mechanical tuning devices, the operator is required to exert some pressure on the plungers or other tuning means employed. Where a radio set is fastened in position, as for example in an automobile radio set, there is no particular problem of sustaining the necessary pressure. Where, if plunger tuning is to be employed on a small, light radio set and the plungers are mounted in such a way as to be operable horizontally, it has usually been necessary to hold the radio set with one hand while operating the plungers with the other. The reason for this, clearly, is that the power required for so-called automatic tuning is usually sufficient to move the radio set. In the radio set of my invention, I avoid this difficulty in one or two ways. In one position of use, the plungers are movable vertically so that the support for the radio set, e. g., a table, will sustain the pressure of automatic tuning. In the other position of use the direction of movement of the automatic tuning device is horizontal; but the radio set is so constructed that it can be brought against a back-stop or the like to sustain this pressure. I have made provision for this while at the same time making provision for adequate ventilation irrespective of the position of the set and without having to provide ventilating means at either the front portions or end portions of the radio cabinet.

I shall proceed now to a specific description of the exemplary embodiment of my radio set as

illustrated in the annexed drawing. 1 represents generally the radio cabinet having end portions 2 and 3; a portion 4 which may conveniently be referred to as the back and a portion 5 which may conveniently be referred to as the bottom. The front portions of the radio set are preferably of curved or slanting form but might be given different design characteristics as will be evident. In the particular form shown, a short face 7 and a short face 8 are connected by a curved portion 9. This curved portion carries a loud speaker grill 10, and the face 7 is perforated so that the automatic tuning plungers indicated generally at 11 may extend through the perforation.

I shall not particularly describe the nature of the automatic tuning mechanism employed with my radio set. It can be of any particular type desired. A suitable type is that set forth in my copending application Serial No. 192,258, filed February 24, 1938, and entitled Push button tuning device, but any other type may be used within the purview of this invention.

The specific embodiment herein disclosed is a radio set now being commercially manufactured having a case of molded resin or its equivalent. Where this is employed, the end portions 2 and 3, the back 4 and the face portions 7, 8, and 9 may all be integral in a single molded article.

At one end of the radio case, I provide a manual tuning knob 12 which may be either of simple or vernier construction. This is provided with a dial 13, and a dial marker 14 is formed on the radio case in such position that it can be readily seen either when the radio is in the position shown in Fig. 2 or in the position shown in Fig. 4. At the other end of the radio cabinet, I provide control means such as the combined switch and volume control 15. For the sake of symmetry, the manual tuning device 12, and the switch and volume control 15 (or other control means) may be made in the same form.

The back portion 4 of the cabinet is conveniently made with molded openings or louvers 16 of elongated form. Since the back is also to be employed as the bottom of the radio set in one position of use, feet 17 are provided. These are conveniently made in the form of slotted rubber bottoms adapted to engage in the slots 16. They not only serve as feet when the radio set is resting on the back but also serve as means for keeping the radio away from a back-stop such as a wall, sufficiently to permit adequate ventilation.

The bottom 5 of the radio set is usually made in the form of an added piece which can be fiber, wood, molded products or metal as desired, and which is provided with rubber feet 18. The bottom is likewise provided with some form of suitable ventilation openings. I have indicated ventilation openings at 19 and 20. It will be noted both with respect to the so-called back 4 and the so-called bottom 5 that each has ventilation openings effective near each edge. It will, thus, be seen that whether the radio set is resting upon its back as shown in Fig. 2 or upon its bottom as shown in Fig. 4, ventilation is accomplished through both of these side portions; and the curved or slanting form of the face or front portions of the radio set (as the portion 9) assists in the production of a relatively strong convection current through the cabinet for ventilation. Also, it will be seen that ventilation is not interrupted when the radio set is pushed

against some such object as I have called a back-stop.

The particular way in which the chassis of the radio set is mounted in the cabinet does not form a limitation on my invention, and may be any desired. It will be usual to mount the loud speaker on brackets on the chassis so that it will come into position behind the grill. The loud speaker can be separately fastened to the cabinet, however, if desired.

I also make provision for the cable by which the radio set is connected to the household current outlet. While it would be possible to bring this cord out at one end of the cabinet, this is not advantageous, and makes the cord apparent when otherwise it might be passed down behind a piece of furniture. Accordingly, I bring out the cord at a convenient place along the meeting edge of the bottom and back, and provide meeting slots in these portions. The back is provided with a slot 21, and the bottom with a slot 22 as shown in the drawing; and Figure 6 clearly shows the two positions of the cable 23. The aerial of the radio set (which in a portable set can be folded and put inside the cabinet through the hole 20 in the bottom when the set is being carried) is of thin wire, thinner in fact than the projecting portions of the feet 17 and 18. Consequently, no such provision is necessary for it as is required for the power cable.

Modifications may be made in my invention without departing from the spirit of it.

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

1. In a radio set of generally rectangular configuration, for use in a plurality of positions, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion said bottom and back portions having ventilating openings therein, and each having feet whereby the back and bottom may be kept sufficiently away from supporting surfaces to permit circulation of air through said cabinet when in either of said positions.

2. In a radio set of generally rectangular configuration, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion, said bottom and back portions each having ventilation openings therein and said front portion being slantingly disposed whereby to facilitate the setting up of a convection current through said cabinet for ventilation.

3. In a radio set of generally rectangular configuration, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion, said bottom and said back each having ventilation openings and each having projecting feet whereby they are held away from a supporting surface.

4. In a radio set of generally rectangular configuration, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion, said bottom and said back each having ventilation openings and each having projecting feet whereby they are held away from a supporting surface and the front portion of said cabinet being slantingly disposed whereby to facilitate the setting up of a convection current of air through said cabinet for ventilation.

5. In a radio set of generally rectangular configuration, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion, said bottom and said back each having ventilation openings and each having projecting feet whereby they are held away from a supporting surface and the front portion of said cabinet being slantingly disposed whereby to facilitate the setting up of a convection current of air through said cabinet for ventilation, said tuning control and said volume control located on the ends of said cabinet being of corresponding shape and configuration, said tuning control at least having dial markings thereon which are visible when the cabinet is viewed in a direction substantially normal to the front thereof.

6. In a radio set of generally rectangular configuration, a cabinet having ends, a bottom, a back and a front portion, and adapted to rest on a horizontal support either on said back or on said bottom, a loud speaker grill and automatic tuning means located in said front portion, a manual tuning control located on an end portion and a volume control located on the opposite end portion, said bottom and said back each having ventilation openings and each having projecting feet whereby they are held away from a supporting surface and the front portion of said cabinet being slantingly disposed whereby to facilitate the setting up of a convection current of air through said cabinet for ventilation, and means for bringing the power cable of the radio set out through either the back or bottom, said means comprising meeting slots in said back and bottom.

7. A radio set having a molded cabinet, said cabinet comprising ends, a back, and a slanting front portion molded integrally, said back having slots therein for ventilation extending substantially from one edge to the other and provided with feet to hold said back away from a supporting surface, and a separate bottom piece for said cabinet comprising a member to close the opened portion of said first mentioned cabinet part, said bottom being provided with ventilation openings effective near both edges thereof and with feet to hold said bottom away from a supporting surface, whereby said radio cabinet may be used while resting either on said back or on said bottom.

8. A radio set having a molded cabinet, said cabinet comprising ends, a back, and a slanting

front portion molded integrally, said back having slots therein for ventilation extending substantially from one edge to the other and provided with feet to hold said back away from a supporting surface, and a separate bottom piece for said cabinet comprising a member to close the open portion of said first mentioned cabinet part, said bottom being provided with ventilation openings effective near both edges thereof and with feet to hold said bottom away from a supporting surface, whereby said radio cabinet may be used while resting either on said back or on said bottom, control means for a radio set located on the ends of said cabinet, and the front of said cabinet being provided with a loud speaker grill and a perforation for automatic tuning means.

9. A radio set having a molded cabinet, said cabinet comprising ends, a back, and a slanting front portion molded integrally, said back having slots therein for ventilation extending substantially from one edge to the other and provided with feet to hold said back away from a supporting surface, and a separate bottom piece for said cabinet comprising a member to close the open portion of said first mentioned cabinet part, said bottom being provided with ventilation openings effective near both edges thereof and with feet to hold said bottom away from a supporting surface, whereby said radio cabinet may be used while resting either on said back or on said bottom, control means for a radio set located on the ends of said cabinet and the front of said cabinet being provided with a loud speaker grill and a perforation for automatic tuning means, said automatic tuning means being of a type comprising plungers so that in the several positions of use of said radio set the force applied in using said automatic tuning means may be sustained by a horizontal surface on which said radio set rests and by a vertical surface against which said radio set is placed, respectively.

10. A radio set having a molded cabinet, said cabinet comprising ends, a back, and a slanting front portion molded integrally, said back having slots therein for ventilation extending substantially from one edge to the other and provided with feet to hold said back away from a supporting surface, and a separate bottom piece for said cabinet comprising a member to close the open portion of said first mentioned cabinet part, said bottom being provided with ventilation openings effective near both edges thereof and with feet to hold said bottom away from a supporting surface, whereby said radio cabinet may be used while resting either on said back or on said bottom, control means for a radio set located on the ends of said cabinet, and the front of said cabinet being provided with a loud speaker grill and a perforation for automatic tuning means, said automatic tuning means being of a type comprising plungers so that in the several positions of use of said radio set the force applied in using said automatic tuning means may be sustained by a horizontal surface on which said radio set rests and by a vertical surface against which said radio set is placed, respectively, and means for bringing out the power cable of said radio set either through said back or through said bottom, said means comprising meeting slots in said back and said bottom.

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