April 11, 1950 H. RIETH 2,503,635

COMPARTMENTED RADIO CABINET AND CLOSURES THEREFOR

Filed March 18, 1946 3 Sheets-Sheet 1

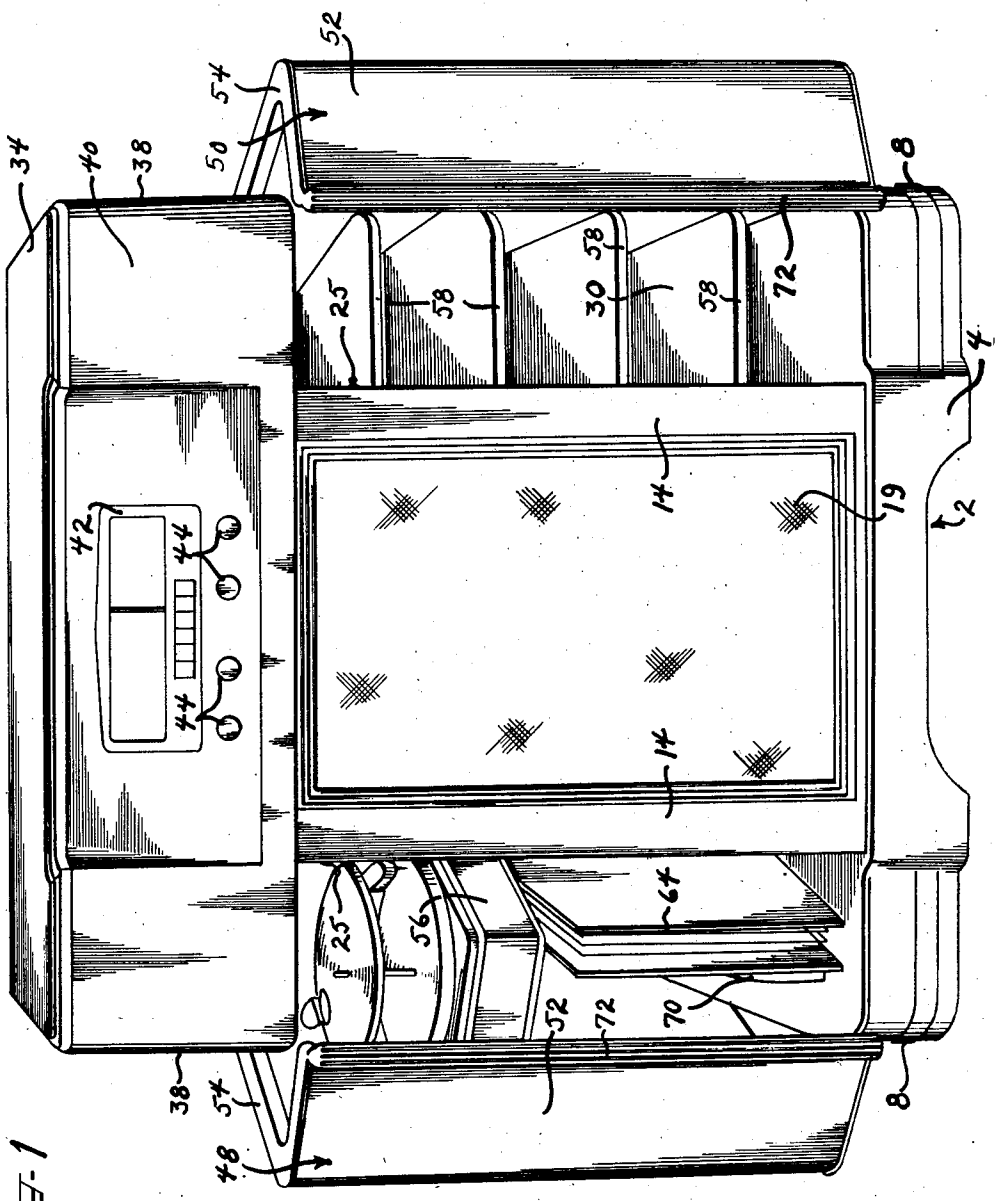


FIG. 1

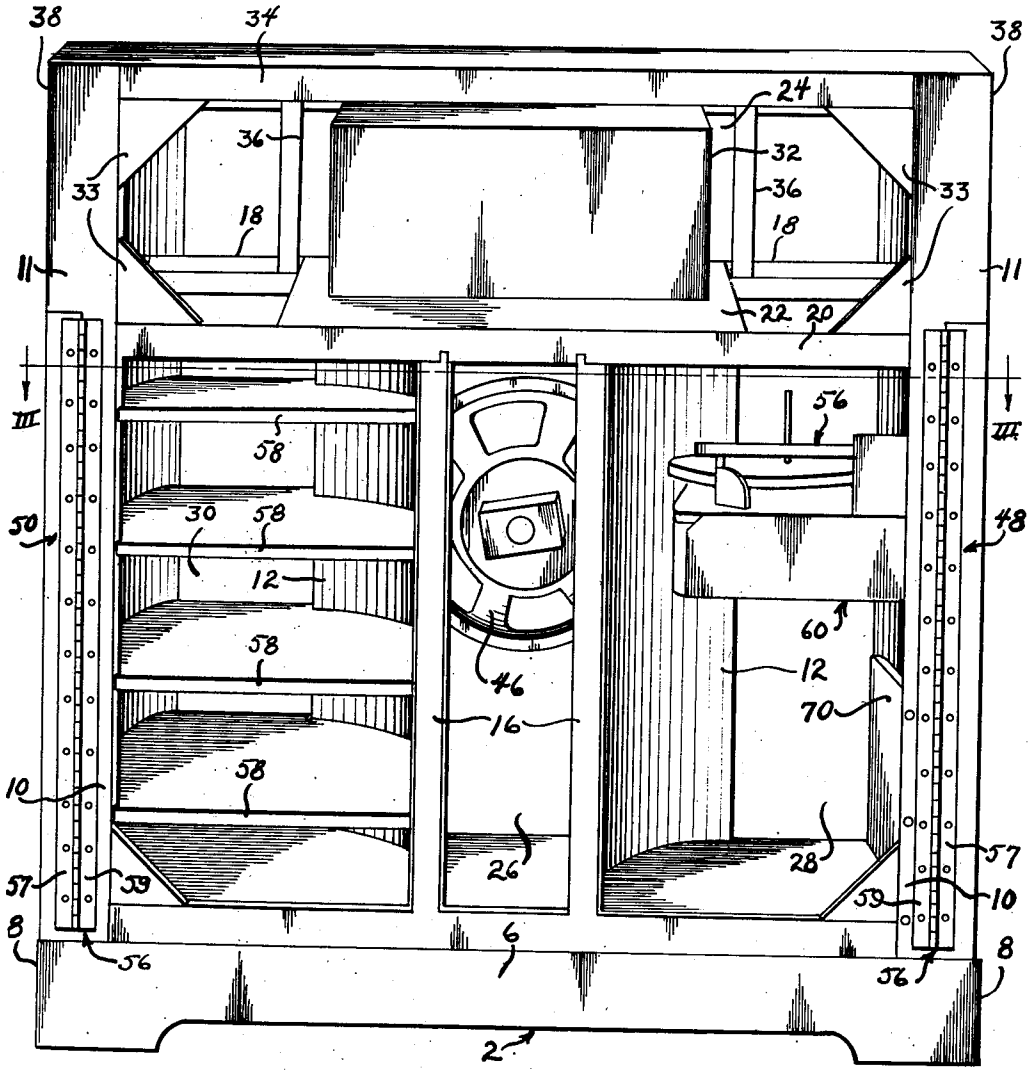
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Fig. 2



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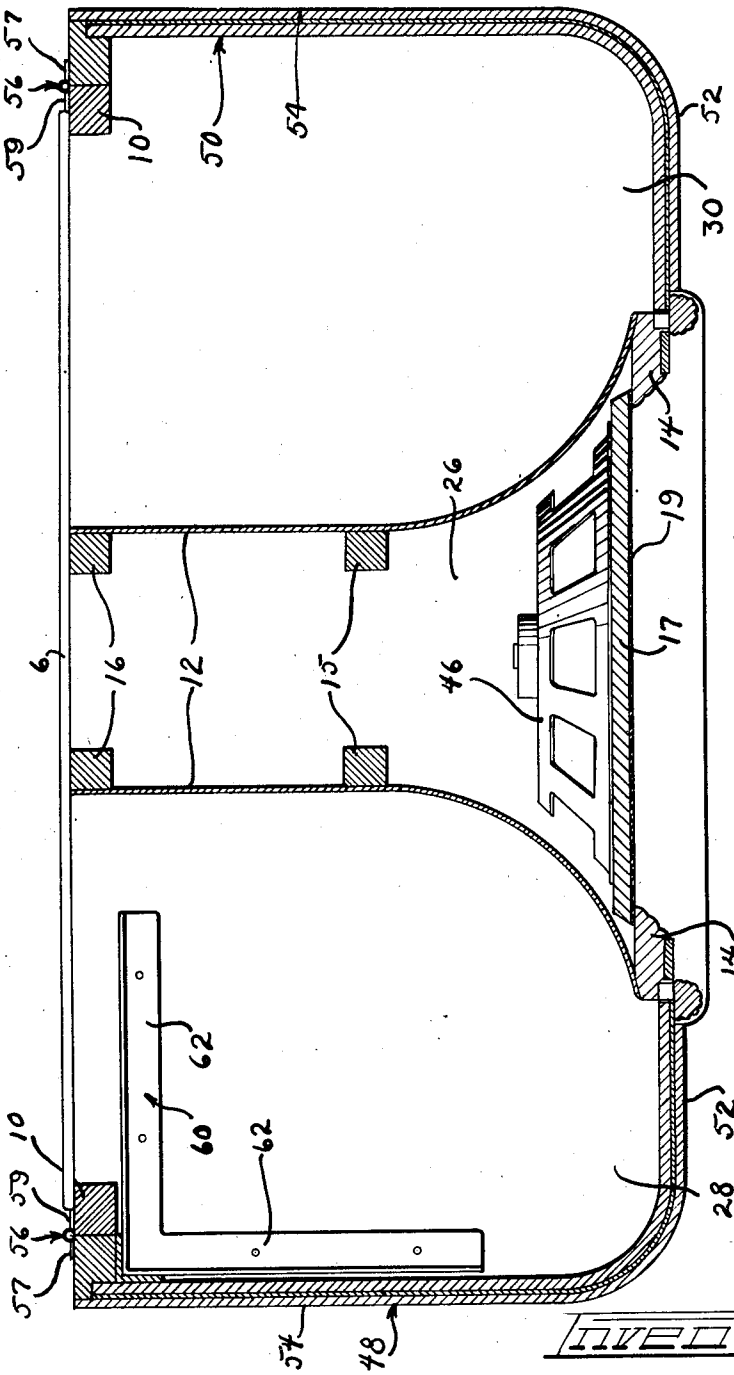


Fig. 3

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UNITED STATES PATENT OFFICE

2,503,635

COMPARTMENTED RADIO CABINET AND CLOSURES THEREFOR

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Application March 18, 1946, Serial No. 655,123

1 Claim. (Cl. 312—7)

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This invention relates to a radio cabinet construction and particularly to a cabinet construction which will efficiently mount a radio receiver, a loud speaker, a record playing device, and provide record storing space.

In accordance with this invention, a radio cabinet is provided having a top compartment in which the radio receiver chassis is mounted and on the front wall of which the radio controls are located. This top compartment overlies three distinct vertically extending compartments which are defined by a pair of spaced, opposed, vertically extending partition members, the bottom ends of which are mounted on a generally rectangular base and the top ends of which support the base of the top compartment. The center partition is utilized to define a compartment in which to mount the loud speaker of the radio receiver. The enlarged annular face of the speaker is disposed in a vertical plane substantially coincident with the front wall surface of the cabinet and the generally conical body portion thereof projects rearwardly into the cabinet. The partitions are each shaped so that the cross sections thereof substantially conform to the external shape of the loud speaker and thus the partitions may lie closely adjacent such speaker and hence provide a maximum volume for the two end compartments respectively defined on the other side of each of the partition walls.

In accordance with this invention, each of the end compartments is open at its front and outer side and a closure member of generally L-shaped horizontal cross section is utilized to close or expose the end compartments. The closure members are each respectively pivotally mounted to vertical back frame members which in turn are respectively mounted on the back corners of the base. The closure members are thus pivotally movable about a vertical axis between a closed position in which the closure members provide front and side walls for the end compartments, thus totally enclosing such compartment and an open position in which both the front and side walls of the compartment are opened and the entire interior of the compartment exposed for ready access.

A further feature of this invention lies in the mounting of a record playing unit, which is electrically associated with the radio receiver and/or loud speaker, upon one of the pivoted closure members. With such an arrangement, the opening movement of the closure member brings the record player completely out of the interior of the cabinet permitting ready access to such record player for loading or unloading of records thereon. In the closed position of the closure member, the record player is entirely disposed within the corresponding end compartment of the cabinet and hence is not only out of sight, but during its operation, the noises attendant thereto, such as record scratch and other sounds accompanying the changing of a record, are substantially muffled by the fact that the compartment within which it is disposed is completely enclosed by the associated closure member. The other end compartment may then be conveniently utilized for record storage by the simple expedient of providing horizontally disposed shelves therein. Accordingly, a maximum utilization of the available space within a radio cabinet is accomplished by the cabinet construction of this invention.

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Accordingly, it is an object of this invention to provide an improved radio cabinet construction permitting utilization of substantially all of the enclosed volume of the cabinet to house elements of the radio receiver, a record player, or provide storage for records.

Another object of this invention is to provide an improved cabinet construction for a radio-phonograph unit wherein the control members for the radio are continuously exposed on the front face of the cabinet for convenient access by the user while the record player unit is disposed on a movable closure member for a compartment of the cabinet such that the record player unit may be selectively located completely within the interior of the cabinet or moved to a position exterior of the cabinet for convenient access for record loading or unloading operations.

A particular object of this invention is to provide an improved radio cabinet construction wherein the radio receiver is mounted in a compartment overlying the loud speaker, and vertically extending partitions conforming to the configuration of the loud speaker separate the speaker from the remainder of the interior of the cabinet and thus provide two large volume compartments within the cabinet for reception of a record player unit or for record storage.

The specific nature of the invention as well as other objects and advantages thereof will become apparent to those skilled in the art from the following detailed description of the annexed sheets of drawings which, by way of preferred example only, illustrate one specific embodiment of the invention.

In the drawings:

Figure 1 is a front elevational view of a radio cabinet embodying this invention, showing the

end compartment closure members in a partially open position;

Figure 2 is a rear elevational view of the cabinet of Figure 1; and

Figure 3 is an enlarged scale, sectional view taken on the plane III—III of Figure 2, with parts omitted for clarity.

As shown on the drawings:

The cabinet structure in accordance with this invention comprises a generally rectangular base portion 2 having a front wall 4, rear wall 6, and side walls 8. At opposite rear corners of the base 2, a pair of upstanding vertical rear frame members 10 are respectively mounted which extend upwardly to substantially the full height of the cabinet. In the central portion of the base 2, a pair of upstanding vertical partition members 12 are mounted in opposed, spaced relationship. For economy of construction, the partition members 12 are preferably formed from any suitable thin sheet-like material and are respectively supported by front, central and rear partition supports 14, 15 and 16 which are respectively mounted on the base 2 in spaced upstanding vertical relationship. A vertical sounding board 17 is also supported across the front central portion of the cabinet on front partition supports 14. It should be noted that the rear partition support members 16 are located much closer together than the width of sounding board 17 and that partition members 12 are in part of curved configuration for a purpose that will be brought out later.

A front horizontal support member 18 extending substantially the full width of the cabinet is supported on top of the front partition supports 14 in a horizontal position overlying the front edges of the partition 12. A rear horizontal support member 20 is supported by the rear frame members 10 and the rear partition support members 16 and overlies the rear edges of the partition member 12. A shelf 22 is supported in a downwardly inclined position by the front horizontal support members 18 and central partition supports 15.

From the construction thus far described, it will be apparent that the shelf 22 and the vertical partitions 12 cooperate to divide the interior of the cabinet into substantially four distinct compartments, namely, a top compartment 24 of relatively shallow height and extending the full width of the cabinet, a central compartment 26 of generally frusto conical cross section and extending vertically from the shelf 22 to the base 2, and two end compartments 28 and 30, respectively, each of which also extends vertically from the shelf 22 to the base 2. By this arrangement, the top compartment 24 may be conveniently utilized to house a radio receiver, the central compartment 26 will house the loud speaker of the radio receiver, while one end compartment 28 may be utilized to house a record player and the other end compartment 30 may be utilized for record storage.

The radio receiver 32, which may be any one of several well known varieties and forms no part of this invention, is conveniently mounted on the shelf 22. The top compartment 24 housing the radio receiver 32 is closed at its top by a top board 34 which is suitably supported on the top of the rear frame members 10 and by intermediate frame members 36 which project upwardly from front horizontal support 18. The side walls 38 and the front walls 40 of top compartment 24 are enclosed by artistically formed panel members. Suitable reinforcing gussets 33 are provided as necessary. A panel type tuning dial 42 is provided centrally in the front wall 40 and the various control shafts (not shown) for the radio receiver 32 project through suitable apertures in the front wall 40 and are provided with operating knobs 44. Hence the controls for the radio receiver 32 are always exposed and immediately available for operation.

In accordance with this invention, the loud speaker 46 of the radio receiver 32 is mounted in the central compartment 26. As will be understood by those skilled in the art, the shape of the loud speaker 46 is generally frusto conical and accordingly the partitions 12 are complementarily arcuately shaped so that the central compartment 26 has a cross section of general frusto conical shape which is of sufficient dimensions to accommodate the loud speaker 46. It will be apparent that the aforedescribed shaping of the partition members 12 thus apportions a maximum possible percentage of the available cabinet volume below a top compartment 24 to the two end compartments 28 and 30. Loud speaker 46 is of course supported on sounding board 17 with the large diameter annular end of the speaker surrounding a suitable aperture (not shown) in sounding board 17. A grille cloth 19 conceals the speaker aperture.

From the construction thus far described, it will be apparent that the end compartments 28 and 30 each have open front and side walls so far as the fixed elements of the cabinet construction are concerned. In accordance with this invention, the front and side walls of the end compartments 28 and 30 are respectively formed by movable closure members 48 and 50. Since the closure members 48 and 50 each cooperate with their respective end compartments in an identical manner, only one of such closure members will be described in detail.

The closure member 48 for the end compartment 28 comprises a vertically disposed member of substantially L-shaped horizontal cross section. The cross section of closure member 48 is formed to substantially duplicate the contour of the side wall 8 of the base 2 and that portion of the front wall 4 of the base 2 which is included in the end compartment 28. Accordingly, the closure member 48 may be aligned with end compartment 28 so that the one side 54 of closure member 48 constitutes a side wall for the compartment 28 while the other side 52 of closure member 48 constitutes the front wall for end compartment 28 and further, the sides 54 and 52 of closure member 48 constitute respectively substantially an extension of side wall 8 and a portion of front wall 4 of base 2.

In accordance with this invention, closure member 48 is pivotally secured to the cabinet by means of a vertically extending, piano type hinge 56, having one portion 57 mounted on the rear face of the side wall portion 54 of closure member 48 and the other cooperating portion 59 mounted on the rear face of the rear frame member 10. It will be noted that the top portion 11 of each rear frame member 10 is laterally enlarged to overlie the side wall portion 54 of closure member 48 and thus permits the side wall portion 54 of the closure member 48 to lie substantially flush with the side wall of top compartment 24 in the closed position of closure member 48. A vertical rib 72 on the free end of closure member 48 provides a convenient and artistic handle for operation of the closure member.

It will be thus apparent that closure member 48

is movably mounted on the cabinet so that it can be selectively positioned in a closed position, wherein it substantially encloses end compartment **28** and the exterior walls of the closure member lie substantially flush with the side and front walls of the cabinet, and an open position wherein closure member **48** swings away from the cabinet about its vertical axis in a clockwise direction as viewed in Figure 3 and thus completely exposes the end compartment **28** for ready access to such compartment through either the front or side walls thereof. The closure member **50** is identically mounted relative to its end compartment **30** and accordingly exposes or encloses such end compartment **30** by pivotal movement between an open and closed position. Suitable resilient latches **25** may be provided to resiliently secure the closure members in closed position.

A record player unit **56** may of course be readily mounted in fixed relation within either of the end compartments **28** and **30**, for example the end compartment **28** while the other compartment, for example the end compartment **30**, is provided with a plurality of vertically spaced horizontal shelves **58** to accommodate stacks of records. The vertical spacing of the shelves **58** may be conveniently apportioned to accommodate a stack of records (not shown) identical in number with the maximum capacity of the record player **56**, assuming that such record player is of conventional automatic type which will accommodate up to ten records at a single loading.

With closure members constructed as heretofore described, a particularly desirable mounting of the record player unit **56** may be obtained by mounting such unit directly to one of the closure members, for example the closure member **48**. To accomplish this mounting an L-shaped bracket member **60** having horizontal flanges **62** has one arm thereof secured to closure member **48**. Record player unit **56** is then suitably secured to flanges **62**. With such mounting of the record player unit **56**, when the closure member **48** is in its closed position, the record player **56** will be completely enclosed within the end compartment **28** which, as has been recognized by the art, is a particularly desirable arrangement inasmuch as the transmission of various noises associated with the operation of the record player, such as needle scratch and the noises accompanying the changing of records, is substantially reduced, thus affording the listener improved quality sound transmission from the loud speaker **46** unaccompanied by extraneous noises. In the open position of the closure member **48**, as shown in Figure 1, the record player **56** is moved to a position substantially completely out of the interior of end compartment **28** thus affording utmost ease of access to the record player **56** for loading or unloading of the records. Furthermore, due to the substantial vertical height of end compartment **28**, the record player **56** may be located in the top portion of such compartment and thus at a very convenient height for the operator whether the operator is standing or sitting in an adjacent chair (not shown). Additional record storage space may then be provided beneath the record player **56** in end compartment **28** and a vertical record support member **70** may be mounted in upstanding relationship

on base **2** to support a stack of record albums **64** in the space between record support member **62** and the adjacent partition member **12**.

Accordingly, it is apparent that a cabinet construction in accordance with this invention provides maximum space utilization for a radio-loud speaker record player cabinet. Without impairing the acoustical location of the loud speaker, the described cabinet construction permits the radio controls to be externally located for immediate access and further provides a mounting for the record changer which will completely expose the record player for loading or unloading and yet will completely enclose such record player for playing or non-use. In addition, a large record storage capacity is provided within the same cabinet. The over all construction is of such simple design as to improve the manufacturability of the cabinet. Finally, the construction of the cabinet lends itself readily to the production of a cabinet having a pleasing and artistic appearance.

It will, of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claim.

I claim as my invention:

A cabinet for radios having a loud speaker comprising a base portion, a pair of upstanding vertical walls on said base portion disposed thereon in spaced relation intermediate the ends of said base, thereby defining a central compartment adapted to receive a loud speaker therein and two end compartments, a shelf supported on top of said vertical walls, a pair of upstanding vertical back frame members mounted respectively on opposed rear corners of said base and extending above said shelf, a cover supported on the top of said frame members and cooperating with said shelf to define a top compartment adapted to receive a radio receiver, a vertically disposed closure member for each of said end compartments, means for pivoting said closure members respectively to said frame members for rotation about a vertical axis adjacent and parallel to one vertical edge of each respective closure member, each of said closure members being shaped to define front and side walls for its respective end compartments, thereby substantially enclosing said respective end compartment in one pivotal position and opening said end compartment in another pivotal position.

HAROLD RIETH.

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