May 21, 1963 W. R. HAWKINS 3,090,661

ELECTRIC PHONOGRAPH STRUCTURE

Filed Nov. 14, 1960

FIG. 1.

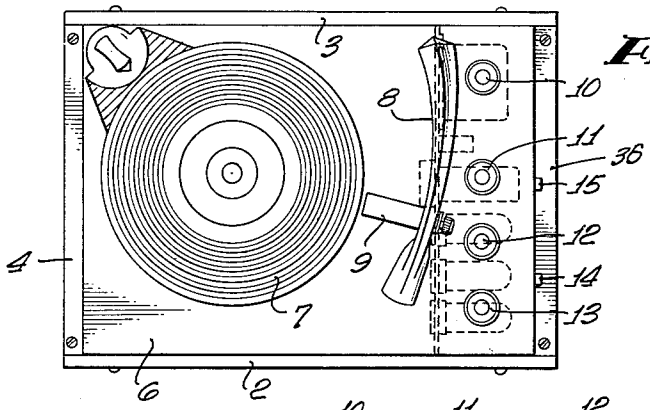


FIG. 2.

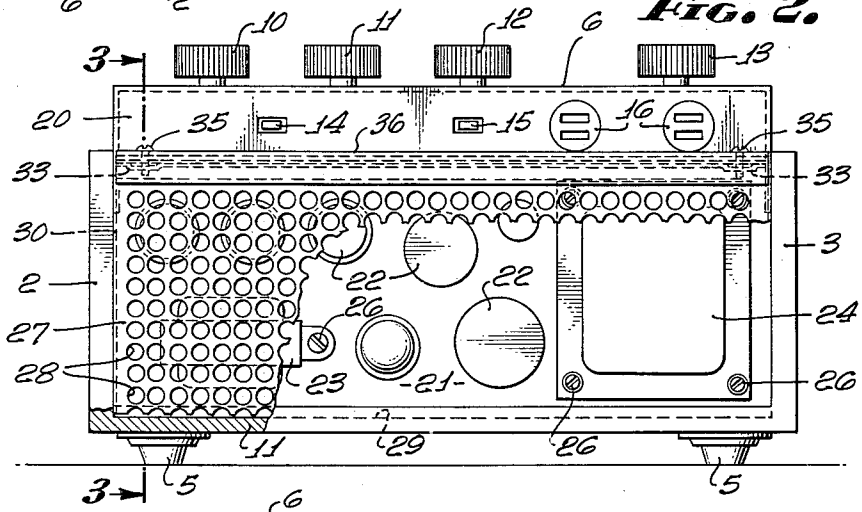


FIG. 3.

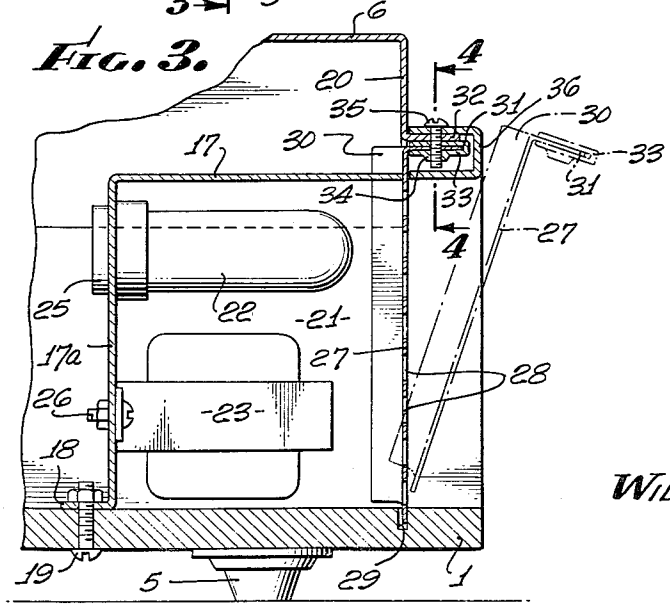
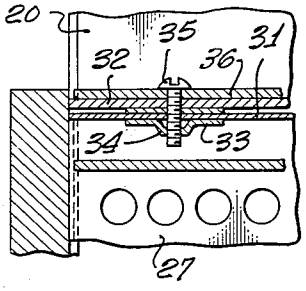


FIG. 4.



INVENTOR.
WILLIAM R. HAWKINS
BY
Flam and Flam
ATTORNEYS.

United States Patent Office 3,090,661 Patented May 21, 1963

3,090,661

ELECTRIC PHONOGRAPH STRUCTURE

William R. Hawkins, Panorama City, Calif., assignor to Newcomb Electronics Corp., Los Angeles, Calif., a corporation of California

Filed Nov. 14, 1960, Ser. No. 68,796
3 Claims. (Cl. 312—8)

This invention relates to electric phonographs. Such phonographs necessarily include amplifier tubes, transistors, transformers, and the like. These component elements, with the associated circuitry, are usually enclosed in a cabinet. It is often necessary to remove and replace such components. Yet such removal or replacement often involves the removal of a wall of the cabinet. Furthermore, these components consume electrical energy, thereby generating heat. It is therefore essential to provide ventilation to dissipate the heat.

It is one of the objects of this invention to facilitate access to these components, as well as to facilitate the dissipation of heat therefrom.

In order to accomplish these results, one or more separate compartments are provided, with a readily removable panel or screen, which house the components.

This invention possesses many other advantages, and has other objects which may be made more clearly apparent from a consideration of one embodiment of the invention. For this purpose, there is shown a form in the drawings accompanying and forming part of the present specification. This form will now be described in detail, illustrating the general principles of the invention; but it is to be understood that this detailed description is not to be taken in a limiting sense, since the scope of the invention is best defined by the appended claims.

Referring to the drawings:

FIGURE 1 is a plan view of a phonograph structure incorporating the invention;

FIG. 2 is an enlarged end view thereof, partly broken away;

FIG. 3 is a further enlarged fragmentary sectional view, taken along a plane indicated by line 3—3 of FIG. 2; and

FIG. 4 is a still further enlarged fragmentary sectional view, taken along a plane indicated by line 4—4 of FIG. 3.

The cabinet for the phonograph structure includes a bottom wall **1** and side walls **2** and **3**. One end wall **4** may be made in any convenient manner. The other end wall structure will be hereinafter described and includes the important features of the invention.

The bottom wall **1** is provided with a plurality of legs **5**. These walls **1**, **2** and **3** can be made of solid material, such as wood or plastic.

The cover member or top **6** is formed of sheet metal having downwardly extending panels telescoping within the walls **2**, **3** and **4**, as shown most clearly in FIGS. 2 and 4. Appropriate fastening means may be provided between the top **6** and the wall structures **2**, **3** and **4**.

The top surface of the member **6** supports the usual turntable **7** with its appurtenances, including a tone arm **8** and its rest **9**.

The interior of the cabinet serves to support the wiring for the electric phonograph, as well as the components employed in connection with the phonograph, such as tubes, transformers, etc.

Control knobs **10**, **11**, **12** and **13** of usual type are shown as projecting through the top **6**. Switches **14** and **15** and sockets **16** for plugs may also be provided on the front panel **20** of the top or cover **6**.

In order to define a recess readily accessible from the exterior for accommodating components of the electrical system, use is made of a sheet metal partition or wall **17** having a horizontal portion and a vertical portion **17***a* attached, as by the aid of a flange **18**, to the bottom wall **1**. Bolts **19** can be utilized for this purpose.

The right-hand edge of the wall means **17** extends outwardly to be aligned with the vertical flange or panel **20** of the top or cover **6**.

The recess **21** formed by the wall means **17** serves to house the necessary electrical components of the phonograph, such as tubes **22** and transformers **23** and **24**. All of these components are readily accessible from the right-hand side of the instrument, as viewed in FIG. 1, by providing a readily detachable cover or wall for the recess **21**. Appropriate sockets or bases, such as **25**, may be supported on the wall means **17** for attachment of the corresponding tube element **22**. The transformers **23** and **24** may be attached by the aid of screws or bolts **26**, readily available from the opening of the recess.

In order to close the recess and yet provide ventilation for the components, use is made of a sheet metal screen **27**, which is perforated to provide a plurality of closely spaced openings **28**.

The lower edge of this member **27** is received in a relatively wide groove **29** formed in bottom wall **1** and adjacent the opening of the recess **21**. Furthermore, the member **27** has a pair of side flanges **30** that fit between the walls **2** and **3**. These side flanges provide appropriate stiffening for the wall structure or screen **27**.

The wall structure **27** is provided with a horizontal flange **31** that projects toward the forward end of the cabinet, and is adapted to be disposed beneath the flange **32** provided in the lower end of the panel **20**. Furthermore, appropriate means may be provided for supplementing the thickness of the horizontal flange **31**, as by the aid of a U-shaped member **33**. The two legs of this U-shaped member **33** embrace the flange **31**. The lower leg is provided at two spaced points with bosses **34** appropriately threaded for the reception of screws **35**, which extend through the flange **32**, member **33**, and the flange **31**.

Embracing the flange **32** and member **33** is another U-shaped trim piece **36**, which effectively conceals these elements. The screws **35** extend through the upper leg of this trim piece **36**.

For removal of the wall **27**, it is necessary merely to unscrew the machine screws **35**. Then the trim piece **36** can be removed; and wall means **27** can be moved forwardly, as shown in phantom lines in FIG. 3, causing disengagement of the lower edge of the apertured wall member or screen **27** from the groove **29**. Then it is a simple matter appropriately to manipulate the circuit components **22**, **23**, etc. After these circuit components have been removed and replaced, the screen wall **27** and trim piece **36** may be replaced and the screws **35** reattached.

The inventor claims:

1. In a phonograph structure including electric components: a cabinet; a wall for partitioning the interior of the cabinet, into a front recess and a rear space; means in said recess for supporting said components; a removable apertured wall adapted to cover the recess, said wall having an edge adapted to engage a groove formed in the cabinet adjacent the opening of the recess; said wall having flanges at opposite sides of the wall and directed inwardly of the recess; said wall having a longitudinal flange at the edge opposite the edge that engages the groove, said flange being directed outwardly of the recess; said cabinet having a portion that overlies said longitudinal flange; a trim strip extending lengthwise of said flange; and means fastening the trim strip to the overlying portion of the cabinet.

2. The combination as set forth in claim 1, in which the trim strip is of U-shaped cross-section, the legs of the U being respectively disposed over the flange and the overlying portion.

3. In a phonograph structure including electric components: an open ended cabinet; wall means within the cabinet for defining a recess that opens at the open end of the cabinet; means in said recess for supporting said electric components; a removable apertured wall for covering said open end, said wall having an edge engaging a groove formed in the cabinet adjacent the open end; said wall having a longitudinal outwardly extending flange at an edge opposite the edge that engages the groove; said cabinet having a portion that overlies and parallels said longitudinal flange; said overlying portion being a flat strip, a trim strip extending lengthwise of said flange; said trim strip being of U-shaped cross-section, and having parallel legs, the flange and the overlying portion being disposed between the legs of the U; and means fastening the trim strip to the overlying portion of the cabinet.

References Cited in the file of this patent

UNITED STATES PATENTS

1,268,064	Johnson	May 28, 1918
1,644,670	Edison	Oct. 11, 1927
1,944,687	Henderson	Jan. 23, 1934
2,411,528	Dodington	Nov. 26, 1946
2,629,764	Wiley	Feb. 24, 1953