Sept. 2, 1947. P. M. GAZLAY 2,426,928

CABINET FOR SOUND REPRODUCING DEVICES

Filed Nov. 29, 1943

Fig. 1

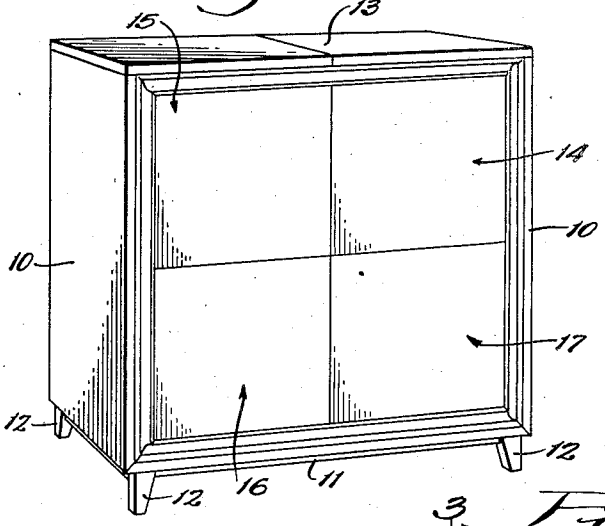


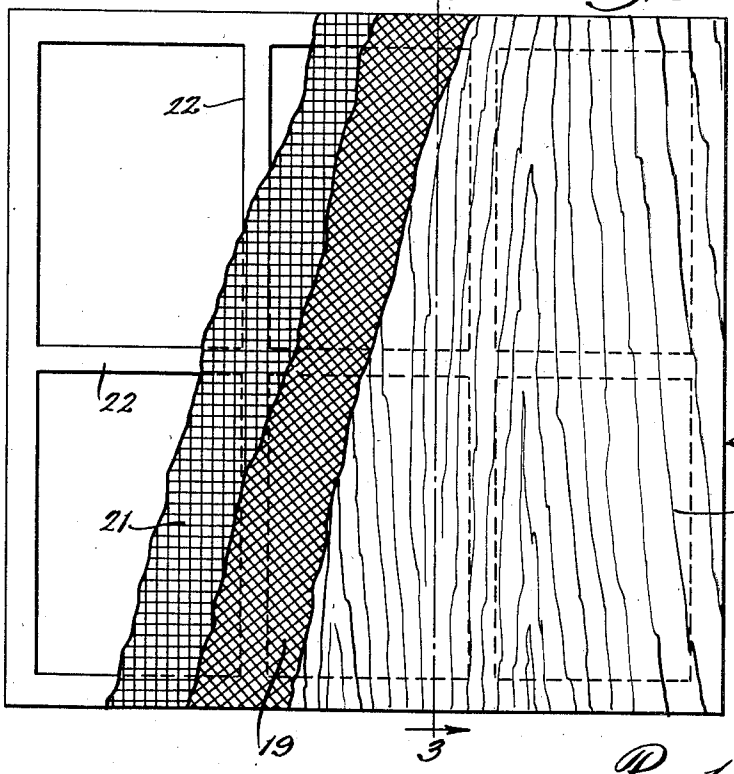
Fig. 3



Fig. 4



Fig. 2



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CABINET FOR SOUND-REPRODUCING DEVICES

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2 Claims. (Cl. 181—32)

1

This invention relates to cabinets for sound producing devices and more particularly to radio or phonograph cabinets.

In radio and phonograph cabinets its has heretofore been the usual practice to leave an opening in the cabinet adjacent the speaker and to cover the opening with cloth. Generally a grill of wood or metal has been fastened over the cloth to prevent puncturing or other damage thereto. The necessity for such openings has seriously limited cabinet design and has compelled the designers to adopt various unsatisfactory expedients to make the openings or the grills less conspicuous.

In certain types of cabinets designed to present the appearance of standard articles of furniture the sound opening has been concealed behind hinged doors and in such cabinets very pleasing effects have been achieved. However, it is necessary in use to let the doors stand open for proper emission of the sound and this not only spoils the appearance of the cabinet but also leaves the door in a projecting position where it is apt to be bumped into or tripped over.

The ideal cabinet is one in which no openings or other breaks are required in the walls but from which sound may be emitted freely and it is one of the objects of the present invention to provide a cabinet of this type.

Another object of the invention is to provide a cabinet having a sound emitting opening which is permanently closed by a thin flexible sheet of wood veneer. Such a sheet may be finished to match the remainder of the cabinet and yet will pass sound without perceptible interference.

Still another object of the invention is to provide a cabinet in which a portion of the wall is formed by an external sheet of wood veneer cemented to a textile sheet which is in turn cemented to a relatively stiff wire cloth backing. Preferably for large openings the wire cloth is secured to a framework of wood or the like.

The above and other objects and advantages will be more readily seen from the following description, when read in connection with the accompanying drawing, in which—

Figure 1 is a perspective view of a combined radio and phonograph cabinet embodying the invention;

Figure 2 is an enlarged plan view of a panel constructed according to the invention with the successive layers broken away;

Figure 3 is an enlarged section on the line 3—3 of Figure 2; and

2

Figure 4 is a further enlarged detail section similar to Figure 3.

The cabinet as shown in Figure 1 is preferably made of wood and comprises relatively heavy wooden side walls 10, a base 11 supported on legs 12 and a top 13. As shown, the top is formed in two sections which are preferably hinged at the back of the cabinet so that they may be opened to permit access to radio and phonograph mechanism contained in the cabinet.

The front of the cabinet is divided into four panels 14, 15, 16 and 17, one or more of which may, if desired, be hinged doors to permit access to a record storage space or the like in the cabinet. The usual loudspeaker is mounted behind one of the panels such, for example, as the panel 17. The three panels 14, 15 and 16 may be of plywood or other relatively heavy wood construction but the panel 17 is permanently fixed in the front of the casing and is constructed to pass sound therethrough without requiring any openings in the casing.

The construction of the panel 17 is best seen from Figures 2, 3 and 4 as comprising an outer layer of very thin flexible wood veneer 18 cemented over its inner surface to a fabric sheet 19. This material has a total thickness of approximately .0154 inch, the thickness of the wood veneer 18 being approximately .0118 inch so that the entire sheet is quite thin and relatively flexible. In order to support the sheet against easy puncturing or other damage the inner side of the textile sheet 19 is cemented to a reinforcing layer of wire cloth 21. Preferably the entire surface is cemented together as shown in detail in Figure 4 so that no looseness between the fabric and wire cloth can occur to cause rattling or like disturbances.

In the case of relatively large openings the wire cloth is further reinforced by a frame work of wood or the like which may be a sheet of plywood having openings cut therethrough to leave cross frame members 22 underlying and supporting the wire cloth. The entire assembly is permanently fastened in place in the cabinet with the usual loudspeaker behind it and spaced slightly from it.

In use the cabinet can be so designed that a panel constructed as shown in Figure 2 may be placed in any desired part of the cabinet without interfering with the design of the remainder of the cabinet and without requiring the provision of any openings in the cabinet for the emission of sound. Instead of forming a panel such as shown at 17 in this manner it will be appreciated that

the sound emitting panel might be used in a false door or in the side of the cabinet or in any other desired place. Regardless of its location the wood veneer 18 may be finished to blend with the remainder of the cabinet so that pleasing designs can be made without openings and without requiring doors or the like which must stand open during operation of the sound producing mechanism.

I have found that a panel constructed in this manner will pass sound with a high degree of efficiency and without perceptible damping or other interference with the sound.

While one embodiment of the invention has been shown and described in detail herein it will be understood that this is illustrative only and is not intended as a definition of the scope, reference being had for this purpose to the appended claims.

What is claimed is:

1. A sound transmitting wall portion for a cabinet comprising a thin substantially flat sheet of wood veneer on the order of .0012 inch thick adapted to be finished on its exterior to blend with the remainder of a cabinet, a textile fabric reinforcing sheet secured to the inner side of the sheet, and a frame secured to the inner side of the reinforcing sheet for permanently securing the sheets in an opening in a cabinet.

2. A sound transmitting wall portion for a cabinet comprising a thin substantially flat sheet of wood veneer on the order of .0012 inch thick adapted to be finished on its exterior to blend with the remainder of a cabinet, a textile fabric reinforcing sheet secured to the inner side of the sheet, a relatively stiff wire cloth sheet secured to the inner side of the reinforcing sheet, and a frame secured to the wire cloth sheet and adapted to be permanently secured in an opening in a cabinet.

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