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H. T. ROBERTS

2,160,284

RADIO CABINET

Filed July 28, 1936

Fig. 1

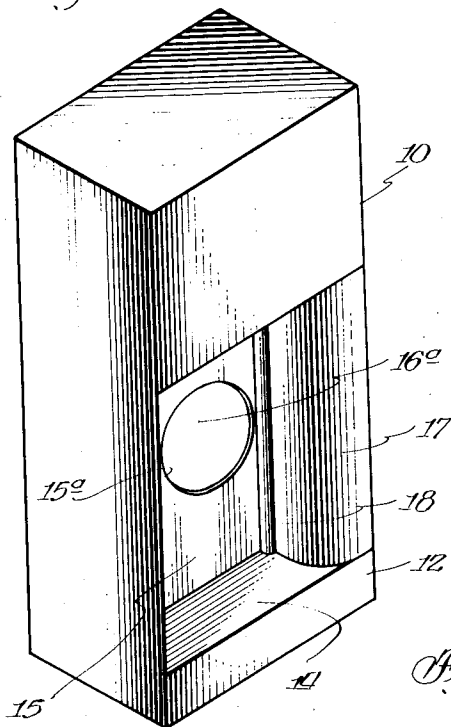


Fig. 2

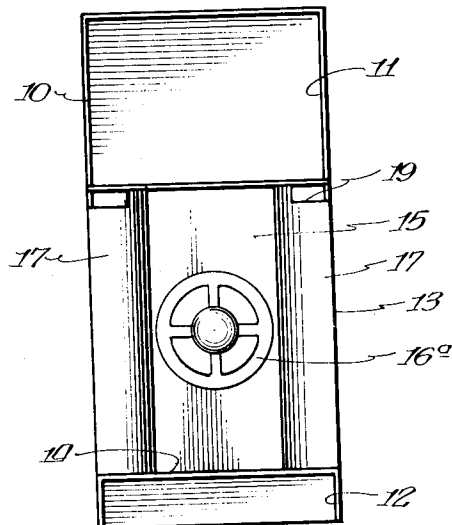


Fig. 4

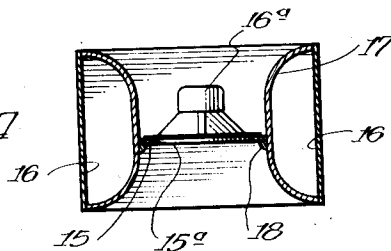


Fig. 5

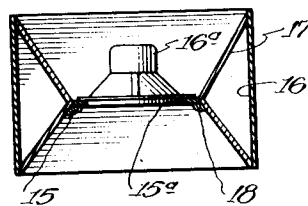


Fig. 3

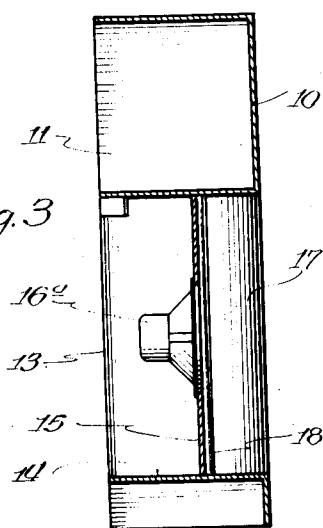
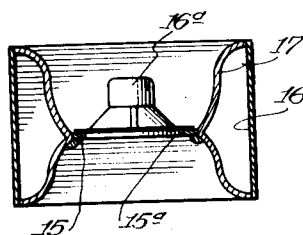


Fig. 6



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UNITED STATES PATENT OFFICE

2,160,284

RADIO CABINET

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1 Claim. (Cl. 181—31)

My invention relates to radio cabinets, and more particularly to the sound chambers thereof, and my main object is to produce sound chambers whose walls present the formation of horns to the front and rear of the radio speaker.

A further object of the invention is to include a main sound chamber and a pair of auxiliary sound chambers designed to perform the action of a violin or mandolin sound chamber.

Another object of the invention is to construct the novel sound chambers along lines of simplicity and economy.

With the above objects in view, and any others which may suggest themselves from the description to follow, a better understanding of the invention may be had by reference to the accompanying drawing in which—

Fig. 1 is a perspective view of the novel radio cabinet as seen from the front;

Fig. 2 is an elevation thereof from the rear;

Fig. 3 is a vertical cross-section;

Fig. 4 is a horizontal cross-section; and

Figs. 5 and 6 are horizontal cross-sections showing modifications.

In the conventional radio cabinet, the sound issues directly forward from the speaker, and the latter is not supplemented for the development or modulation of its tone. Consequently, the tone value is fully dependent on the speaker itself, and harshness and other deficiencies in the same are not overcome or reduced in any way. Also, with the radio cabinet set against or close to a wall, counter-vibrations are set up from the sound issuing to the rear of the speaker, tending to distort the tone values issuing into the room. In devising the novel radio cabinet, it has been my intention not only to utilize the sound projected from both sides of the speaker, but also to improve and blend the same by passage through horn formations supplementing the speaker.

In accordance with the foregoing, specific reference to the drawing indicates a radio cabinet at 10, the same being shown devoid of ornamentation for purposes of simplicity, although any suitable type of ornamentation may be applied without prejudice to the improved sound chamber.

The cabinet is composed of a top section 11 for the radio set, a bass section 12, and an intermediate section 13 for the main and auxiliary sound chambers. The bottom wall of the main sound chamber is indicated at 14 and resting on it approximately midway between the front and rear the vertical sounding board 15, which is perforated at 15a for the attachment of the speaker 16 from the rear in the customary manner.

From the foregoing it is obvious that the main sound chamber is in the form of a horizontal tube.

The sounding board 15 does not extend fully across the sound chamber, but only as far on each side as the pair of auxiliary sound chambers 16 extending vertically within the sides of the cabinet. The outer walls of these auxiliary sound chambers are formed by the side walls of the cabinet, while the inner walls are formed by curved sections 17 of wood veneer. These preferably carry moldings 18 in front of the sounding board 15 for the application and attachment of the latter. Also, the column-like sound chambers 16 extend fully between the portions 11 and 12 of the cabinet and are completely enclosed except for top openings 19 at the rear.

By the curved and departing formations of the veneer sections 17 from the zone of the speaker 16a, such sections assume the character of horns to supplement the latter, lending their vibrational value to develop and purify the tone, so that it has a soft and mellow quality. The auxiliary sound chambers 16 form tone columns and vibrate in the nature of the sound chamber of a violin or mandolin, the tonal waves issuing from the breather openings 19 to blend with the sound issuing from the rear of the speaker. It is of course preferable to place the novel radio cabinet with its back considerably removed from a wall or other flat surface, in order that the full emission of rearwardly projected sound may be taken advantage of.

It is further evident that the novel radio cabinet presents a finished frontal appearance as well as a pleasant appearance from the rear, since both the front and rear are practically similar. The cabinet therefore has ornamental value when positioned away from a wall or toward the center of a room, since its rear side does not detract in any way from its appearance. In fact, with the flared formations polished or otherwise finished, an attractive appearance is presented without the need of the usual grill or fabric front.

While it is preferable to build the auxiliary sound chambers 16 with the curved formations shown, they may be modified to be of triangular cross-section, as indicated in Fig. 5, or with a double curvature, as indicated in Fig. 6. In fact, the novel cabinet is susceptible of various minor changes and refinements, and I desire to consider these as coming within the scope and spirit of the appended claim. Finally, it will be evident that a cabinet constructed in accordance with the above description involves parts which are

few, simple and assembled without undue skill, so that a cabinet of this kind may be produced at low cost.

I claim:

- 5 In a radio cabinet, top, bottom and side walls defining a horizontal, tubular main sound chamber, a vertical sounding board in said main sound chamber intermediate the front and rear ends thereof, said sounding board being substantially
- 10 parallel to said front and rear ends and having an opening, a speaker substantially spanning said opening, the side edges of said sounding board being spaced from said side walls and the top

and bottom edges of said sounding board terminating at said top and bottom walls of said main sound chamber, and supplemental walls extending from the side edges of said sounding board to the edges of said side walls to provide column-like auxiliary sound chambers filling the spaces between the edges of said sounding board and said side walls and extending from said bottom wall to said top wall of said main sound chamber, said column-like auxiliary sound chambers having openings adjacent their upper ends for emission of sound therefrom.

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