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HOUSING CONSTRUCTION FOR RADIO APPARATUS

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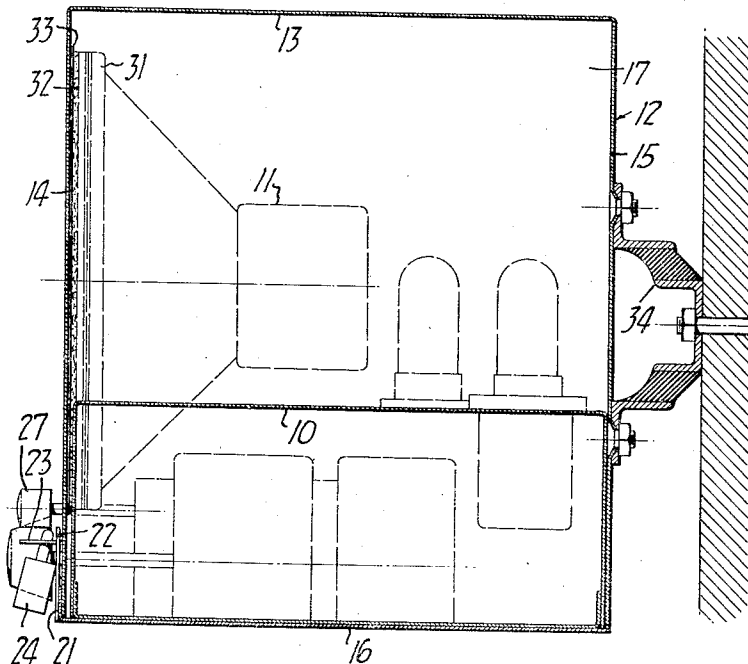


FIG. 2

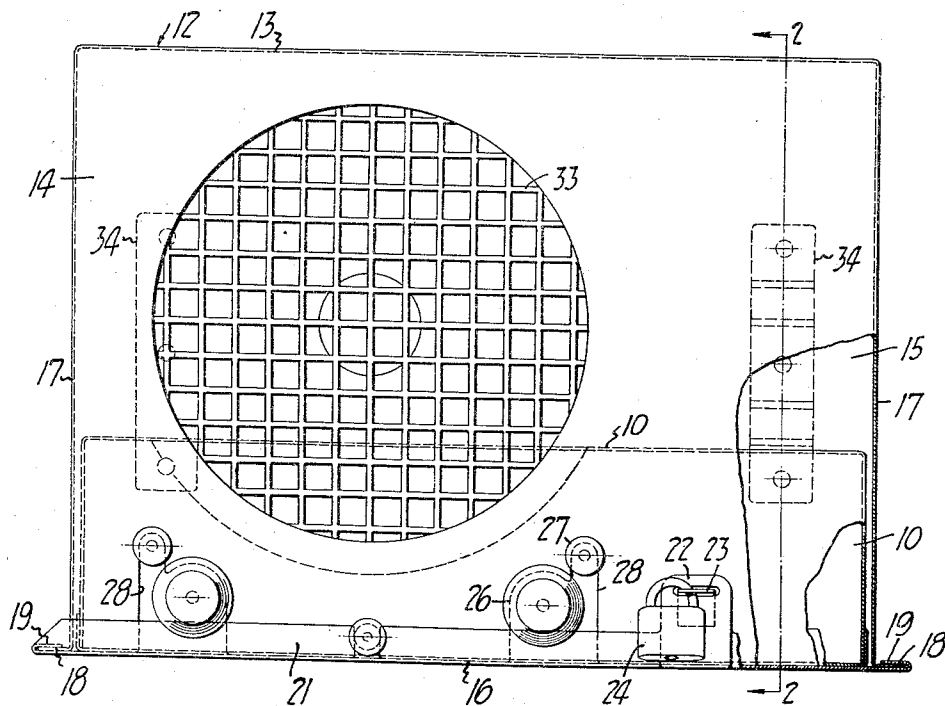


FIG. 1

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UNITED STATES PATENT OFFICE

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HOUSING CONSTRUCTION FOR RADIO APPARATUS

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1 Claim. (Cl. 250—16)

This invention relates generally to radio apparatus, where the apparatus makes use of an assembly unit for purposes of radio reception or transmission, or both. The invention is concerned particularly with the construction of a housing or casing for the assembly unit.

In general it is an object of the invention to provide a housing construction, which will make possible removal of an inner assembly unit merely by removal of a bottom wall of the housing, and without necessitating removal of bolts, screws, or like permanent attaching means.

Further objects of the invention will appear from the following description in which the preferred embodiment of the invention has been set forth in detail in conjunction with the accompanying drawing.

Referring to the drawing:

Fig. 1 is a front view, showing radio apparatus incorporating the present invention.

Fig. 2 is a cross-sectional view taken along the line 2—2 of Fig. 1.

As pointed out above the present invention resides particularly in the manner in which a radio assembly unit is carried within a housing, and in the manner in which the housing is constructed to permit the quick removal of the inner unit for inspection or repair. The radio assembly unit illustrated in Figs. 1 and 2 consists of a rectangular shaped mounting 10, formed of suitable material such as sheet metal. Certain parts, such as the radio tubes, are mounted upon the upper wall of the mounting, while other parts, like tuning condensers, inductances, etc., are carried within the mounting. One particular part carried by the mounting 10, consists of a loud speaker 11. The assembly unit can be made to constitute a radio receiver, a radio transmitter, or both a radio transmitter and a radio receiver. In the particular instance illustrated it constitutes both a radio receiver and radio transmitter, the loudspeaker 11 being a part of the radio receiving means.

The mounting 10 and associated parts are normally disposed within the housing 12. This housing is rectangular in shape and formed of sheet metal, the walls of the same including the top wall 13, front and back walls 14 and 15, bottom wall 16, and end walls 17. The mounting 10 of the assembly unit normally rests upon the bottom wall 16, there being no other attachment between the mounting 10 and the remainder of the housing.

The bottom wall 16 is made removable, preferably by means of an interlocking engagement

with the remainder of the housing, whereby the wall 16 is removed or applied by sliding movement in a horizontal direction. Thus the bottom edge portions of the end walls 17 are shown bent outwardly to form tongues 18, while the end portions of the bottom wall 16 are doubled back upon themselves as indicated at 19, thus affording a groove for slidably accommodating the tongues 18. The forward edge of the bottom wall 16 is shown provided with an upturned flange 21, which normally engages front wall 14, as shown in Fig. 2. A part of this flange is shown extended to form a slotted tab 22, which cooperates with a bail 23, mounted upon the front wall 14, whereby the bottom wall can be locked in normal position by means of a padlock 24, or like device.

The radio assembly unit conventionally includes certain control shafts, which extend to a convenient position exterior of the housing, for manipulation by the operator. Thus in this instance control knobs 26 and 27 are shown mounted upon shafts which extend from the assembly mounting 10, and which are accommodated by slots 28, formed in the lower edge of the front wall 14.

It will be evident that when the bottom wall 16 is removed by sliding movement in a forward direction, the inner assembly unit is free to drop downwardly, since there is no attachment between this unit and the remainder of the housing, other than frictional engagement. The rigid ring 31, which forms a part of the loudspeaker 11, has its forward face provided with rubber or felt 32, to contact the inner face of the forward wall 14. In accordance with conventional practice the forward wall is also cut away in front of the loudspeaker, to afford the usual grill 33. The proportioning of mounting 10 is such that when the entire unit is forced upwardly into the housing, and the bottom wall 16 applied to support the mounting, the felt 32 is pressed against the inner face of front wall 14, thus tending to avoid any rattling or lost motion between the inner unit and the housing, particularly when the apparatus is used as a part of a mobile system on automobiles or aircraft. Instead of attaching the bottom wall 16 to a fixed support, the back wall is provided with cushioned supporting brackets. Thus the bottom wall 16 is readily accessible for quick removal, without removing the housing as a whole from its supporting means.

I claim:

In radio apparatus making use of a radio as-

sembly unit, a metal box adapted to be carried
by a fixed mounting, the front vertical wall of
said box having its lower edge portion slotted
in a vertical direction, to accommodate control
5 shafts, a bottom wall for the box serving to sup-
port an inner assembly unit, and means forming

an interlocking engagement between said bottom
wall and walls of the box, said interlocking en-
gagement enabling removal of said bottom wall
only by sliding movement of the same in a hori-
zontal plane.

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