

Nov. 28, 1967

G. R. MUNDSCHEK ETAL

3,355,702

TERMINAL MOUNTING DEVICE

Filed June 9, 1966

FIG. 1

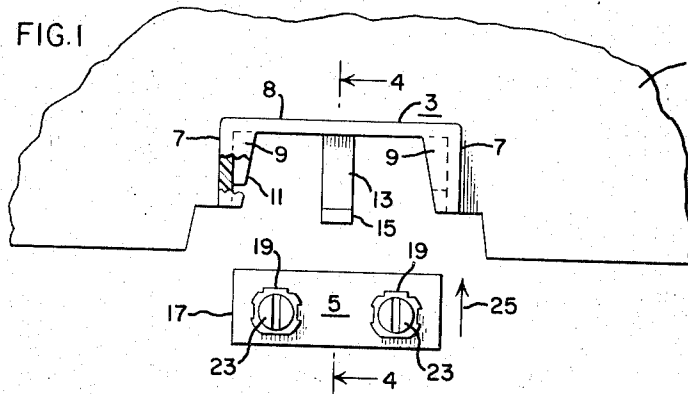


FIG. 2

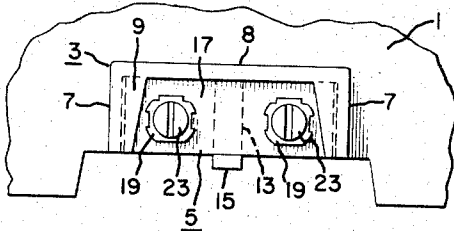


FIG. 3

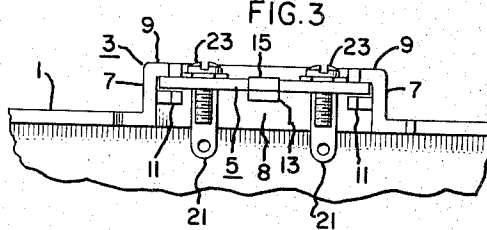
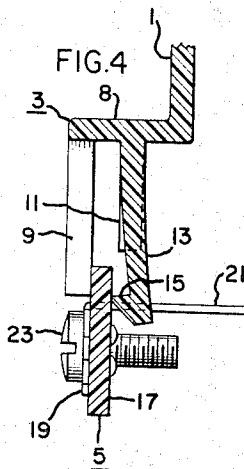


FIG. 4



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TERMINAL MOUNTING DEVICE

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Filed June 9, 1966, Ser. No. 556,327

4 Claims. (Cl. 339-126)

The present invention relates to terminal mounting devices and, more specifically, to a device for mounting antenna terminals to radio receivers or like devices.

A terminal board assembly supporting a pair of spaced antenna terminals is conventionally employed in radio receivers and like devices to permit connection of an external antenna to the receiver. Such an assembly generally comprises a terminal board formed from an insulating material and having a pair of spaced terminals extending from one side thereof, a screw engaging each terminal from the opposite side of the board. The extending terminals are electrically connected to the appropriate circuit points within the receiver cabinet while the terminal board is mounted to the cabinet in such a manner that the screws are accessible from the outside of the cabinet. Suitable terminals on the external antenna leads are captivated by the screws to electrically and mechanically connect the external antenna to the receiver.

In the past antenna board assemblies of this type have been mounted to the cabinet by the use of screws or other fasteners. The use of such fasteners adds unwarranted complexity to the radio receiver and necessitates time-consuming assembly operations which materially add to the cost of the receiver.

The present invention provides a simplified device for mounting an antenna terminal board to the cabinet of a radio receiver or like device.

Accordingly, an object of the invention is to provide an improved device for mounting an antenna terminal board to a radio receiver.

Another object is to provide an improved antenna terminal board mounting device which completely eliminates the necessity for screws and similar fasteners.

Another object is to provide a device which permits easy and rapid mounting of an antenna terminal board assembly to a radio cabinet.

These and other objects are achieved in one embodiment of the invention through the use of means molded integrally with the radio cabinet to lockedly engage the terminal board without the necessity for additional fasteners. More specifically, spaced tracks are provided to receive opposite edges of the antenna terminal board. A resilient finger is provided to lockedly engage an intermediate portion of the terminal board when the board is inserted in the tracks. In this manner the board is retained in the cabinet without the necessity for additional fasteners.

The novel and distinctive features of the invention are set forth in the appended claims. The invention itself together with further objects and advantages thereof, may best be understood by reference to the accompanying drawings in which:

FIG. 1 is a bottom view of a radio receiver cabinet employing the invention showing an antenna terminal board assembly in an unmounted position,

FIG. 2 is a view similar to that shown in FIG. 1 with the antenna terminal board mounted to the cabinet,

FIG. 3 is a rear view of the cabinet shown in FIG. 2, and

FIG. 4 is a sectional view taken along the line 4-4 of FIG. 1 showing for purposes of illustration the antenna terminal board assembly partially mounted to the cabinet.

Referring to FIG. 1 there is shown generally at 1 the

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bottom of a radio receiver cabinet formed from a plastic material and including means shown generally at 3 for mounting a terminal board assembly 5.

The mounting means 3 comprises a generally U-shaped mounted bracket integrally molded with and protruding from the bottom of the radio receiver 1 as shown most clearly in FIG. 3. The bracket generally comprises a pair of side walls 7 and an end wall 8. Each side wall 7 of the mounting bracket is formed to provide first and second spaced track members 9 and 11 respectively. The track members 9 and 11 may be tapered as shown to facilitate insertion of the terminal board assembly 5 therein.

The mounting means 3 further includes a centrally located resilient finger 13 extending from the rear wall 8 and including a transversely extending end portion 15 as shown most clearly in FIG. 4, the end portion 15 being adapted to lockedly engage an intermediate portion of the terminal board assembly 5.

The terminal board assembly 5 may be conventional in form and comprises an insulated board 17 having a pair of spaced antenna terminals 19 positioned thereon. Each terminal 19 is provided with an extending terminal portion 21 as shown most clearly in FIGS. 3 and 4, the terminal portions 21 extending into the interior of the cabinet for connection to appropriate circuit points in conventional fashion.

The terminal board assembly 5 further includes a screw 23 associated with each terminal member 19, the screws 23 being received by threads in the associated terminal member 19 in such a manner that the antenna lead can be secured to the terminals in conventional fashion by the simple act of tightening the screws.

The terminal board assembly 5 is mounted in the mounting means 3 by first positioning the terminal board assembly as shown generally in FIG. 1 and then advancing the terminal board assembly 5 in the direction of the arrow 25. As shown most clearly in FIG. 4, the terminal board assembly 5 is received between the spaced track members 9 and 11, the resilient finger 13 being flexed from its rest position, as shown, to permit insertion of the terminal board assembly. The transversely extending portion 15 of the resilient finger 13 can be tapered as shown in FIG. 4 to facilitate insertion of the terminal board assembly.

The terminal board assembly 5 is then completely inserted in the bracket with the board abutting the end wall 8 and the side edges of the terminal board 17 completely received between the associated track members 9 and 11 as shown most clearly in FIG. 3.

The distance between the transversely extending portion 15 and the end wall 8 is slightly greater than the width of the terminal board 17. Thus, with the terminal board 17 completely inserted in the bracket such that the terminal board abuts the end wall 8, the resilient finger 13 returns to its rest position as shown in FIGS. 2 and 3, the transverse portion 15 thus engaging an intermediate portion of terminal board 17 to lock the terminal board assembly in the mounting means 3.

Thus, in accordance with the invention the terminal board assembly 5 is easily and rapidly mounted to the cabinet 1 in a single motion while completely eliminating the necessity for additional fasteners such as screws.

In a preferred embodiment of the invention, the receiver cabinet including the integrally molded bracket and resilient finger 13 is injection molded in a single operation from a plastic material such as polystyrene.

Although the invention has been described with respect to certain specific embodiments, it will be appreciated that modifications and changes may be made by those skilled in the art without departing from the true spirit and scope of the invention. Thus, although the bracket for receiv-

ing the antenna terminal board assembly has been shown positioned on the bottom of the receiver cabinet, it will be appreciated that in some applications the chamber might be located at other positions.

What we claim and desire to secure by Letters Patent of the United States is:

1. In a radio receiver including a cabinet and terminal board, apparatus for mounting the terminal board comprising:

- (a) a mounting bracket integrally formed with the cabinet and having first and second side wall portions and an end wall portion,
- (b) each of said side wall portions being provided with a pair of spaced track members receiving an associated side edge of the terminal board therebetween, and
- (c) a resilient finger extending from the end wall portion of said bracket between said side wall portions and including a transverse portion lockedly engaging the terminal board intermediate the side edges thereof.

2. The apparatus defined in claim 1 wherein the terminal board includes a pair of spaced terminals extending into said cabinet, each terminal having a threaded member received by threads in the associated terminal for attaching an antenna lead thereto.

3. The apparatus defined in claim 1 wherein said mounting bracket is generally U-shaped.

4. The apparatus defined in claim 1 wherein said track members are tapered to facilitate insertion of the terminal board in said bracket.

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