Sept. 3, 1957 M. C. MOSSINGTON 2,804,934

RADIO SPEAKER ASSEMBLY

Filed Oct. 10, 1956

FIG. 1

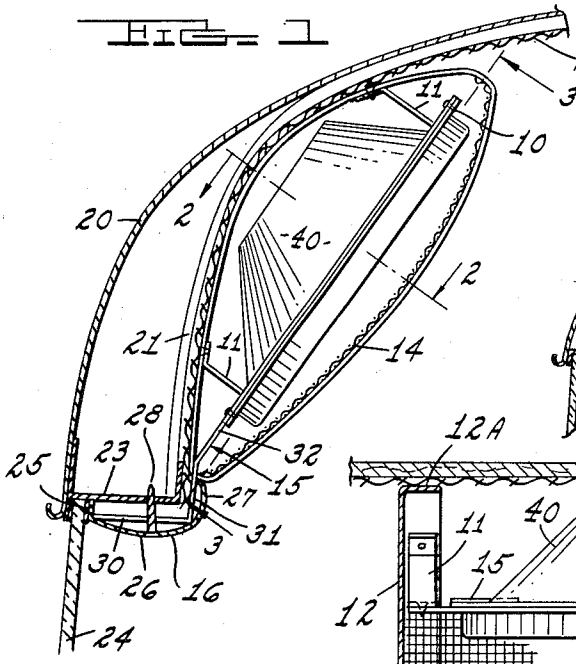
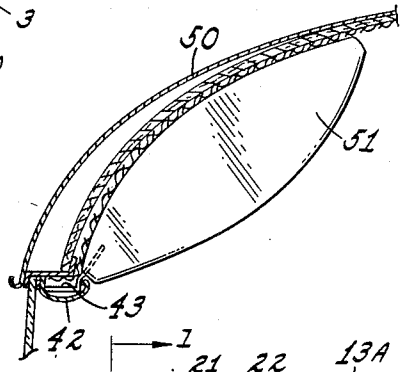


FIG. 4



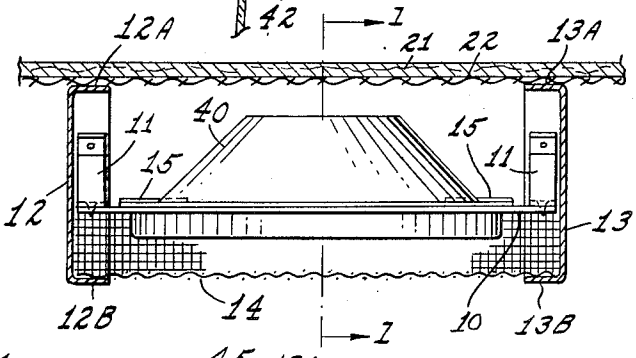


FIG. 2

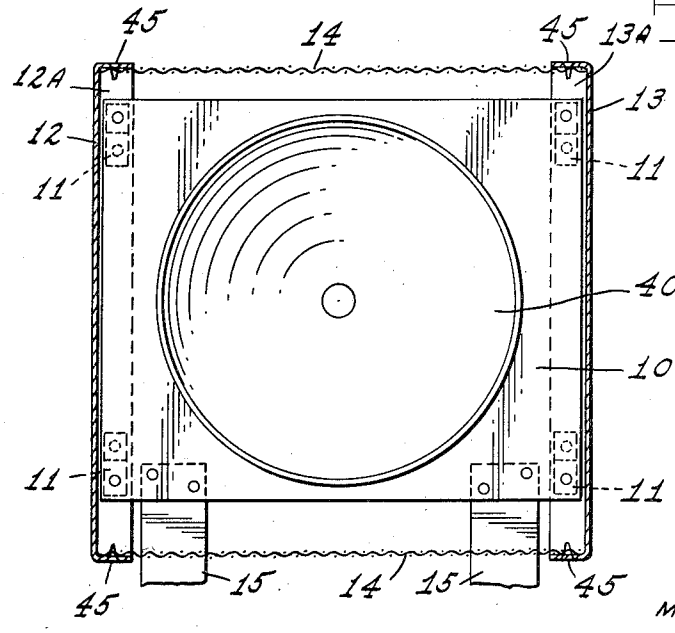


FIG. 3

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RADIO SPEAKER ASSEMBLY

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2 Claims. (Cl. 181—31)

This invention relates to a radio speaker assembly particularly suitable for installation inside a vehicle adjacent the roof and to new and novel mounting means therefor.

Radio speakers have been employed heretofore in vehicles, however, the several devices of the prior art have not proven entirely satisfactory for mounting adjacent the roof of the vehicle inasmuch as they are complicated in design and construction and incapable of being mounted adjacent to roof without materially obstructing or altering the interior of the vehicle.

With the foregoing in view, the primary object of the invention is to provide a radio speaker housing assembly which is simple in design and construction, inexpensive to manufacture, easy to use, and easy to install and remove without the use of any mounting screws, bolts, or other conventional securing means and which does not require vehicle structural alterations.

An object of the invention is to provide a bracket support for the housing which is receivable and cooperable with the vehicle window garnish moulding and adapted to lie within the moulding and extend therefrom directly into the speaker housing.

An object of the invention is to provide a chassis for the speaker housing by using the speaker frame therefor so that the speaker frame is mounted on the supporting bracket and the end panels and face screen are, in turn, mounted on the speaker frame.

An object of the invention is to provide contoured end panels adapted to fit in the top corner pocket of the vehicle roof panels just above the vehicle windows which end panels are equipped with a peripheral flange in one portion adapted to contact the vehicle headlining and seal thereagainst and in an oppositely disposed position adapted to receive and hold the face screen to conceal the interior parts of the speaker and housing.

An object of the invention is to provide a speaker assembly and attaching means which can be installed easily by a professional installer or by a self user.

An object of the invention is to provide a speaker housing and attaching means which can be fitted to all sizes of vehicles without changes in its assembly or arrangement of parts.

An object of the invention is to provide a speaker housing and attaching means so integrated so that no holes, cuts, or alterations are made in the vehicle body not only so that this work is not necessary in mounting the speaker but also so that no holes, alterations, or cuts appear after the speaker housing has been removed such as in transferring the speaker to another vehicle.

These and other objects of the invention will become apparent by reference to the following description of a vehicle radio speaker housing and attaching means embodying the invention taken in connection with the accompanying drawing in which:

Fig. 1 is a cross-sectional view taken on the line 1—1 of Fig. 2 showing the inventive speaker housing mounted in the arcuate corner pocket of the vehicle roof panel.

Fig. 2 is a cross-sectional view of the device seen in Fig. 1 taken on the line 2—2 thereof.

Fig. 3 is a cross-sectional view of the device seen in Fig. 1 taken on the line 3—3 thereof; and

Fig. 4 is a view similar to Fig. 1 showing end panels having a modified contour, a modified vehicle garnish moulding, and a modified attaching bracket.

Referring now to the drawing wherein like numerals refer to like and corresponding parts throughout the several views, the speaker housing and attaching means disclosed therein to illustrate the invention comprises a speaker frame **10** having fingers **11** secured thereon and extending rearwardly therefrom and attached to the rear portion of the end panels **12** and **13**, and a face screen **14** disposed on and across the face portion of the panels **12** and **13** and supported thereby so as to screen the interior of the assembly. Mounting brackets **15** are attached to the speaker frame **10** and are interlocked in the vehicle garnish moulding **16** so as to support the speaker assembly in the vehicle roof panel arcuate pocket portion just above the garnish moulding at the windows.

More particularly the vehicle roof pocket is defined by the curving roof panel **20** on the outside and the intermediate bow strip **21** on the inside and the headliner **22** overlying the bow strip **21**; the channel **23** over the window **24** interconnects the roof panel **20** with the bow strip **21** and headliner **22** so as to space and support the parts over the window area and the garnish moulding **16** is adapted to lead from the headliner **22** downward arcuately around to the window **24**; the window garnish moulding **16** in cross-section comprises an outside lip portion **25** adjacent the window **24**, an intermediate strip portion **26** and an inside arcuate lip portion **27** adapted to seal the headliner **22** against the channel **23**. It is to be noted that the garnish moulding **16** is secured to the channel **23** via the sheet metal screws **28** and that the garnish moulding **16** defines a hollow channel relative to the channel member **13** so that it can receive the end of the bracket **15** therein.

The bracket **15** comprises a foot portion **30** in outside end contact with the moulding outside lip **25**, an intermediate leg portion **31** connected to the inside end of the foot portion **30** leading at an angle thereto past the moulding inside lip **27** with the juncture of the bracket foot **30** and intermediate leg **31** in contact with the garnish moulding **16** adjacent the juncture of the strip portion **26** and the inside lip portion **27**. It is to be further noted that the top portion of the intermediate bracket leg portion **31** is in contact with the upper beaded edge of the moulding inside lip **27** so that the bracket foot portion **30** and leg portion **31** are held within the garnish moulding **16** channel so as to be incapable of moving due to the three-point tri-angulated contact.

The upper leg **32** of the bracket **15** is connected to the intermediate leg outwardly of the garnish moulding **16** and is attached to the speaker frame **10** such as by rivets and it can now be seen that the moulding **16** and the bracket **15** support the speaker frame **10** in the position shown in the drawing.

The speaker frame **10** acts as a housing chassis and holds the speaker **40** and supports the fingers **11** attached thereto at the edges thereof such as by rivets or welding, and the fingers **11**, in turn, are fixed to the end panel inside flanges **12A** and **13A** so as to support the end panels and to position the inside peripheral flanges **12A** and **13A** against the headlining **22** in sealing relationship. The end panel outside peripheral flanges **12B** and **13B** are adapted to receive and trap the metal face screen **14** therebetween so as to support same across the exposed face of the speaker housing to conceal the interior construction and to present a pleasing aspect; it is to be noted that the juncture between the speaker inside

peripheral flanges 12A and 13A and the outside peripheral flanges 12B and 13B provides an area through which attaching screws 45 can be inserted to secure the screen 14 fixedly to the panels 12 and 13 so that the screen 14 acts as a structural member across the end panels.

Referring now to the device seen in Fig. 4 it will be noted that the roof panel 50 crown is lower requiring a slightly different configuration and positioning of the speaker housing and this is accomplished by making the housing panels 51 of a slightly different shape; the garnish moulding 42 is also of a slightly different configuration requiring a modification in the bracket 43, and it is to be understood that the garnish moulding 42 supports the bracket 43 which supports the speaker frame, fingers, end panels, and face screen as hereinbefore described.

In use in operation, the speaker assemblies are integrated with the speaker frame supporting the fingers 11, end panels 12 and 13, and the screen 14; the brackets 15 on the frame 10 extend from the bottom end of the speaker housing assembly; to mount the speaker housing in this condition it is only necessary to remove the screws 28 from the garnish moulding 16 and insert the bracket 15 foot 30 and intermediate leg 31 therein and to then reinsert and attach the sheet metal screw 28; the device is then mounted and ready for use.

Due to the fact that the wiring can be easily enclosed within the garnish moulding 16 leading to the radio amplifier, no extra work is involved in mounting the speaker assemblies and no apertures, cuts or alterations are necessary in any of the vehicle parts.

The inventive speaker housing and attaching means with these features constitutes a compact, durable, neat appearing mechanism easily mountable and demountable above a vehicle window in the roof corner pocket and provides an attractive integrated appearance as though much laborious time has been consumed in mounting, securing, and modifying the roof to receive a radio speaker housing.

Although but a single embodiment of the invention has been shown and described in detail, it is obvious that many changes may be made in the size, shape, detail and arrangement of the various elements of the invention within the scope of the appended claims.

I claim:

1. A radio speaker assembly particularly suitable for mounting adjacent a vehicle roof above the vehicle window garnish moulding comprising a bracket having a bottom foot adapted to lying inside a vehicle window garnish spanning the horizontal dimension thereof, an intermediate leg leading upwardly from the inside end of said foot adapted to lead out of said garnish moulding between the moulding vertical portion and the vehicle headlining, and a top leg leading upwardly from said intermediate leg; a speaker frame secured to said top leg, end panel support fingers on either end of said frame, end panels fixed on said fingers at either end of said frame having back portions adapted to set against a vehicle headlining and front portion facing a vehicle interior, and a grille disposed across said end panel front portions covering the area therebetween and securing the front portions of said end panels together.

2. A radio speaker assembly and support therefore particularly suitable for mounting adjacent a vehicle roof above the window garnish moulding comprising a bracket adapted to be secured to the vehicle body, a speaker frame mounted on said bracket, fingers on said speaker frame, opposed end panels on either side of said speaker frame having front and back edges, and said fingers being connected to said end panel back edges; and a screen disposed across said end panel front edges and connected thereto for support; said screen covering the exposed area between said end panels and securing said end panels front edges together.

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