Oct. 23, 1962 N. MALLERS 3,060,263

AUDIO SYSTEM FOR DRIVE-IN THEATRES

Filed Oct. 17, 1958 2 Sheets-Sheet 1

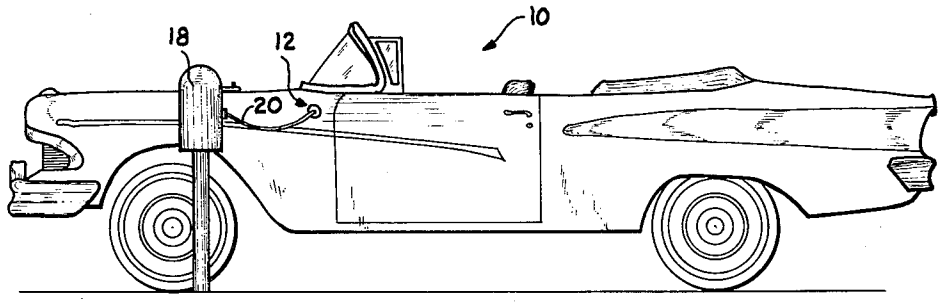


FIG. 1

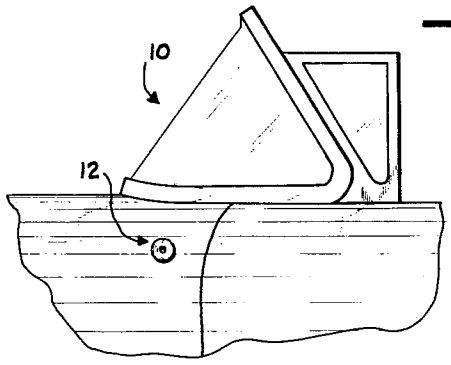


FIG. 2

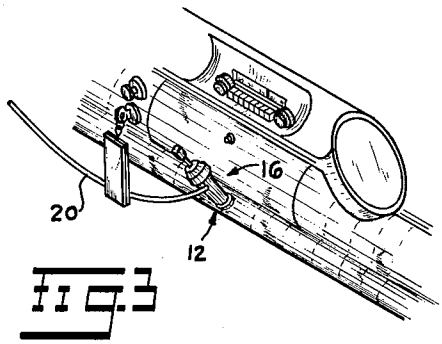


FIG. 3

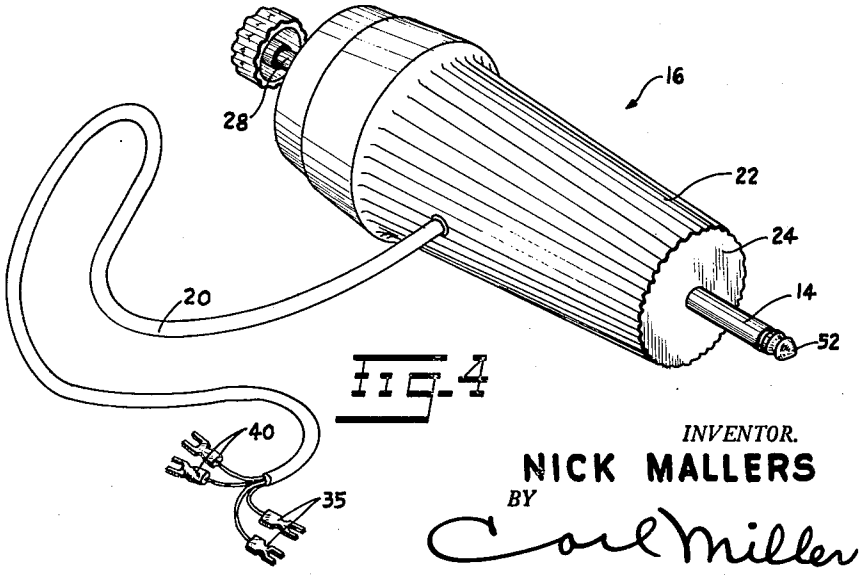


FIG. 4

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AUDIO SYSTEM FOR DRIVE-IN THEATRES

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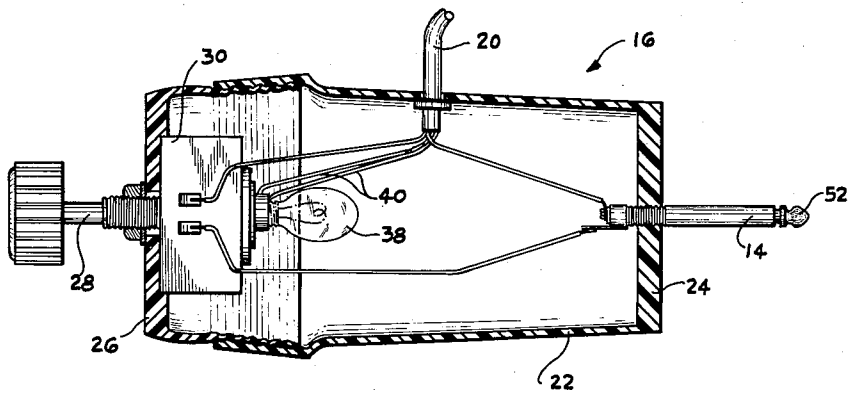


Fig. 5

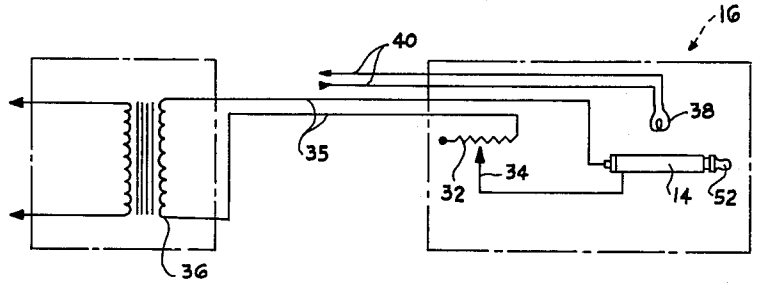


Fig. 6

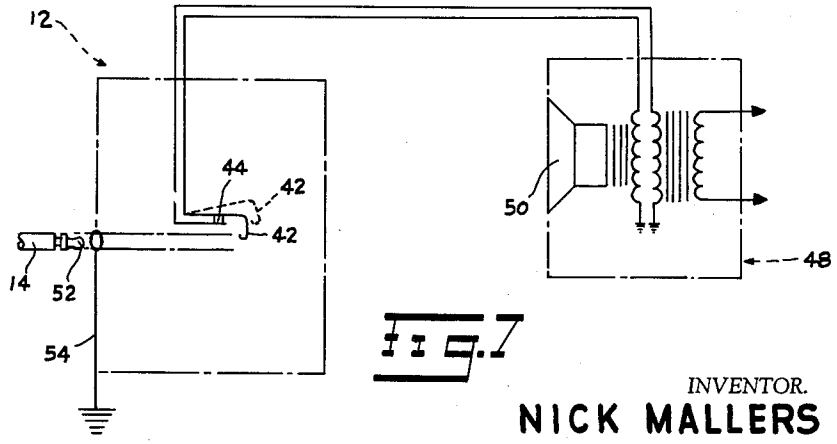


Fig. 7

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AUDIO SYSTEM FOR DRIVE-IN THEATRES

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3 Claims. (Cl. 179—1)

This invention relates to drive-in theatres and, more particularly, to a device for enabling the speaker of the vehicle radio to be used for reproducing the sound part of the motion picture film.

Ordinarily, a small loud speaker is connected by means of a flexible cable to the stallway provided for the parking of each vehicle in the drive-in theatre area. These speakers are then placed within the vehicle so that the occupants may hear the sound of the motion picture film while observing it through the windshield of the vehicle. In many instances, these speakers are damaged by the inadvertent movement of the vehicle before the speaker and connecting cable have been removed from the vehicle, and because of corrosion and deterioration caused by the elements when such speakers are exposed in inclement weather. It is therefore an object of the present invention to provide an audio system by which the sound of the motion picture film track may be reproduced directly in the vehicle through the vehicle radio speaker.

Another object of the present invention is to provide a switch for automobile radios which will automatically connect the speaker of the radio to the sound system of the theatre in response to the insertion of a connector member.

An additional object of the present invention is to provide a volume control unit engageable within the aforementioned switch device for controlling the rod of the signal reproduced by the automobile radio speaker and which includes self contained illuminating means for facilitating the location of the various parts of the system during use.

A further object of the present invention is to provide apparatus of the type described that can be manufactured in large quantities at a relatively low cost, and which will provide better service to the patrons and lower operating costs to the theatre owner.

All of the foregoing and still further objects and advantages of this invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein:

FIGURE 1 is a side elevational view of a vehicle embodying an audio switch system made in accordance with the present invention with the unit accessible from the exterior of the vehicle;

FIGURE 2 is an enlarged fragmentary side elevational view of certain parts of the vehicle shown in FIGURE 1;

FIGURE 3 is a fragmentary perspective view of a slightly modified arrangement in which the switch member is accessible from the interior of the vehicle;

FIGURE 4 is a perspective view of a volume control unit forming a part of the present invention;

FIGURE 5 is a longitudinal cross sectional view of the assembly shown in FIGURE 4;

FIGURE 6 is a diagrammatic view of the wiring of the volume control unit shown in FIGURE 5; and

FIGURE 7 is a schematic wiring diagram of the switch assembly forming a part of the present invention.

Referring now to the drawing, and more particularly to FIGURES 1 and 2 thereof, an automotive vehicle **10** equipped in accordance with the present invention for connection to the sound system of an outdoor theatre is shown to include an electrical switch assembly **12** mounted in the exterior side portion thereof and which includes a phono plug type receptacle for slidably receiving a phono jack type plug **14** of a volume control unit **16** forming another part of the present invention. In FIGURE 3 of

the drawing, a slightly modified arrangement is shown wherein the switch assembly **12** is mounted upon the dashboard of the vehicle so as to be accessible from the interior of the body.

The volume control unit **16** includes a translucent side wall **22**, a base wall **24**, through which the plug **14** projects, and a top closure **26** that is threadedly secured to the side wall **22** and rotatably supports a volume control adjustment shaft **28**. This shaft **28** controls the position of a contact slider **34** relative to a resistance element **32** within a volume control rheostat **30**. A flexible cable **20** houses one pair of conductors **35** which connects the rheostat **30** in series with the sound system **36** of the theatre and the plug **14** extending outwardly through the base **24** of the unit. Another pair of conductors **40** extending through the cable **20** energizes a lamp **38** mounted within the translucent casing **22** so as to provide sufficient light to properly locate the volume control unit **16** relative to the switch assembly **12** either on the inside or outside of the vehicle, as the case may be.

Reference is now more specifically made to FIGURE 7 of the drawing, wherein the switch assembly **12** is shown to include a spring plate conductor **42** that is normally spring biased into electrical contact with a contact element **44** which thus closes the circuit through a transformer **46** of the vehicle radio speaker **50**, which is normally driven by the amplifier of the vehicle radio. However, in response to the insertion of the leading contact tip **52** of the plug **14** into the mounting **54** of the switch assembly, the spring contact **42** is moved out of circuit closing engagement with the fixed contact **44** and instead connects the speaker **50** of the vehicle in series with the rheostat **30** and the theatre sound system **36**, whereby the sound signal produced by the theatre sound system is reproduced through the vehicle speaker **50**, the volume of which may be controlled by adjustment of the control shaft **28** of the rheostat **30**.

It will now be recognized that it is only necessary to provide each stall post **18** with a volume control unit **16** by connecting the terminals of the conductors **35**, **40** thereto. When the vehicle drives into the stallway, all that remains to be done is to insert the plug **14** of the volume control unit **16** into the external switch assembly receptacle illustrated in FIGURES 1 and 2, or into the similar receptacle of the switch assembly **12** mounted upon the dashboard of the vehicle illustrated in FIGURE 3, whereby the volume of the sound being reproduced is completely within the control of the occupants of the vehicle and is reproduced through the speaker of the vehicle radio. In the event that the vehicle starts to drive away before the parts are disconnected, the tensioned connecting cable **20** will merely snap the volume control unit **16** out of the switch receptacle without damage to any parts. In addition, inclement weather, heat, and the like will not adversely effect the operating parts of the volume control unit **16** which can be conveniently stored in any desired position upon the stall post **18**.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claims appended hereto.

Having thus described my invention, I claim as new and desire to secured by Letters Patent:

1. An audio system comprising, in combination, a speaker mounted within a vehicle, a switch normally connecting said speaker in circuit with a radio audio amplifier, a volume control unit having conductor means for connection to an audio signal source and to said switch, said switch having contacts automatically connecting said audio signal source to said speaker in response to connection of said volume control unit to said switch, said volume con-

trol unit comprising a rheostat, a control shaft connected to said rheostat controlling the setting thereof, said volume control unit including a translucent casing, and an illuminated lamp mounted within said casing visible through said casing and illuminating said casing to facilitate the manipulation thereof, said volume control unit further comprising an outwardly extending phono type plug, and said switch including a receptacle slidably receiving said plug therewithin, wherein said switch further comprises a fixed contact and a movable contact, said movable contact being disposed in the path of movement of said plug through said receptacle for disconnecting said movable contact from said fixed contact and connecting said movable and fixed contacts to separate contacts carried by said plug, said separate contacts carried by said plug being connected in series with said volume control rheostat and the audio system of a theatre.

2. An audio system as set forth in claim 1, wherein said switch receptacle is supported upon the exterior surface of the vehicle for access from the outside of the vehicle body.

3. An audio system as set forth in claim 1, wherein said switch receptacle is carried upon the vehicle dashboard for access from the interior of the vehicle.

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