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[54] **CARRYING CASE FOR PA SYSTEM WITH STOWED LECTERN**

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[52] **U.S. Cl.** ..... **312/314,** 179/1 E, 248/460, 312/223, 312/244

[51] **Int. Cl.** **A47b 77/10,** A47b 88/00

[58] **Field of Search** ..... 312/223, 244, 316, 313, 312/314, 315, 233, 317; 179/1 E, 1 A, 1 R; 248/460, 316; 200/61.62; 108/48; 5/159, 160, 161

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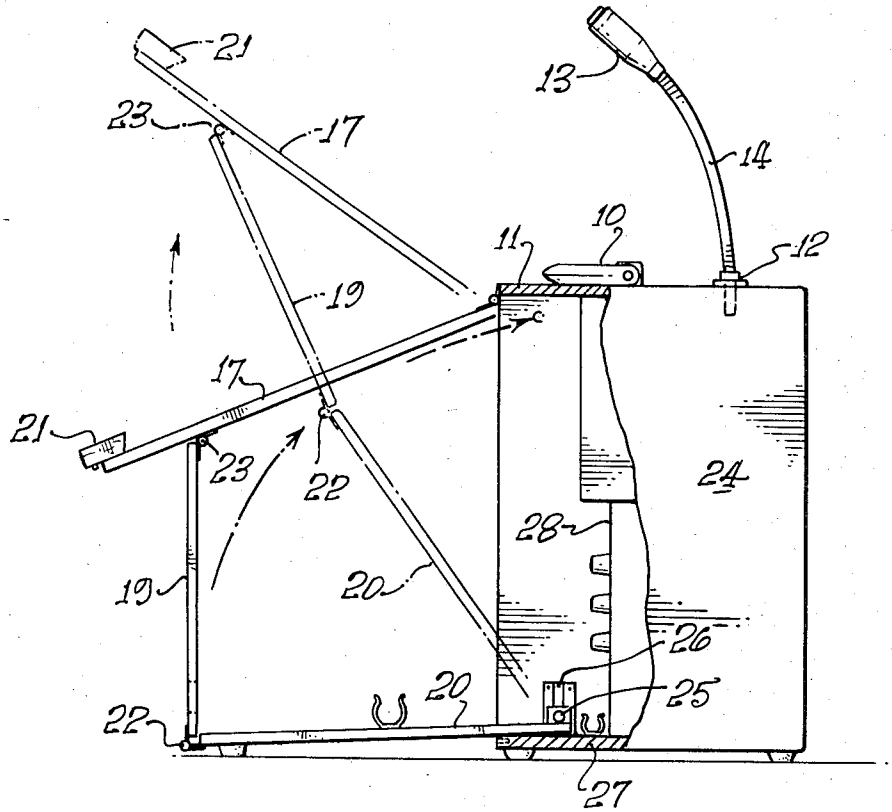
Primary Examiner—James T. McCall

Attorney, Agent, or Firm—Lindenberg, Freilich, Wasserman, Rosen & Fernandez

[57] **ABSTRACT**

A carrying case for a portable PA system is disclosed having a panel hinged at the top and two hinged support members, one hinged near the free end of the panel and the other pivoted near the bottom of the case such that one member extends downwardly from the panel to support it near its free end and the other member extends outwardly from the case near the bottom to secure the foot end of the one member in a fixed position relative to the case. To close the case, the hinge between the two support members is swung through an arc up and into the case. As the panel is closed the end of the other member pivoted in the case is permitted to rise in the case by slots on the sides of the case for the pivots.

10 Claims, 6 Drawing Figures



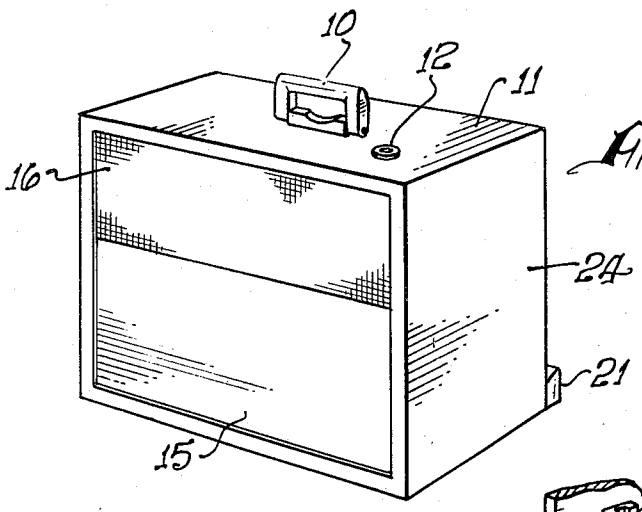


FIG. 1.

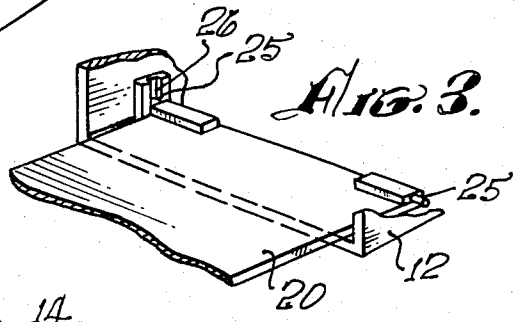


FIG. 3.

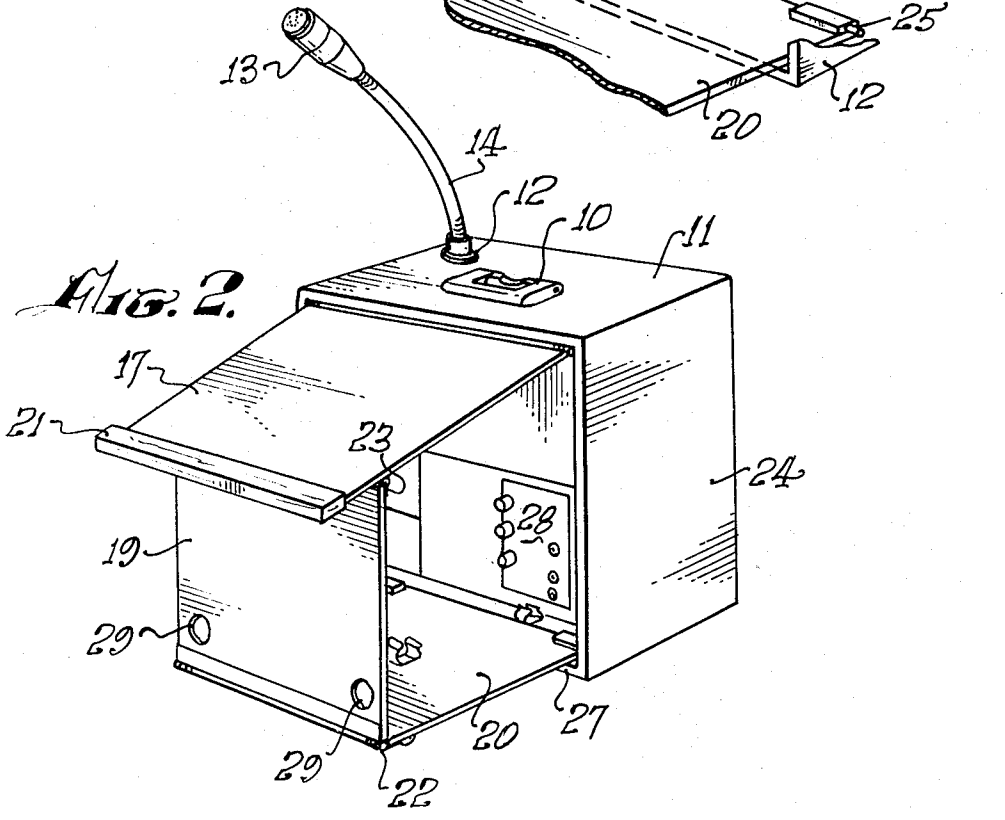


FIG. 2.

FIG. 4.

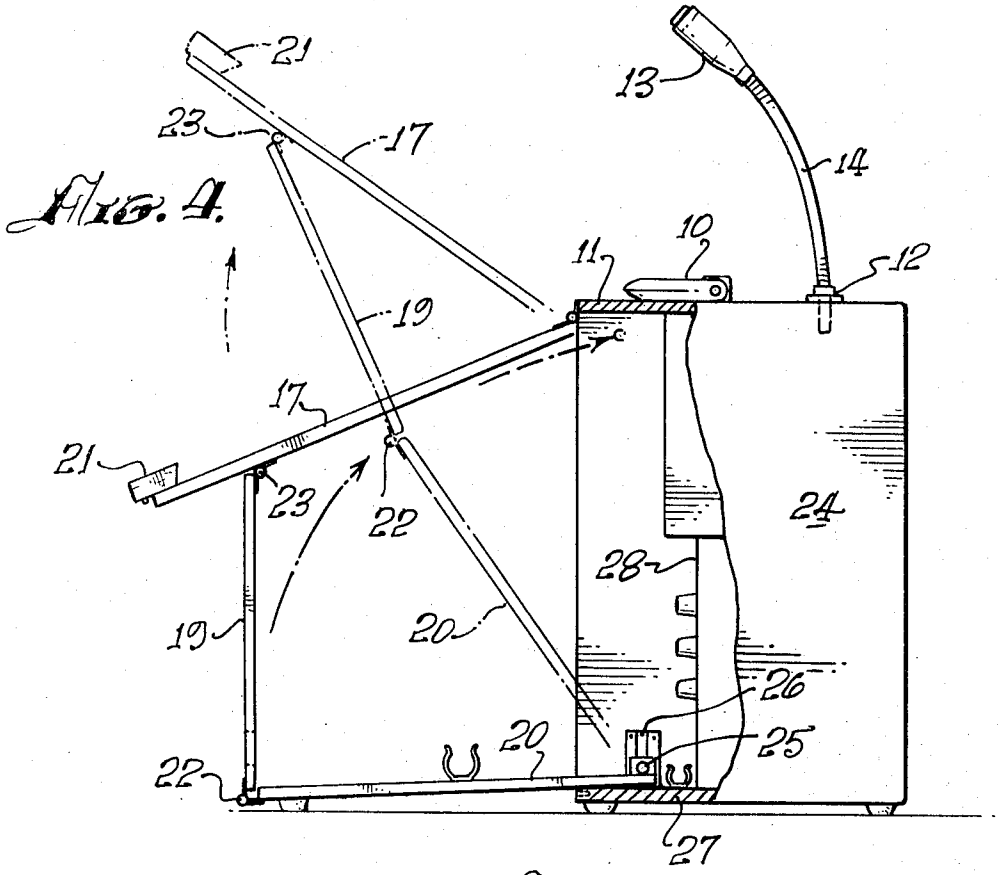


FIG. 5.

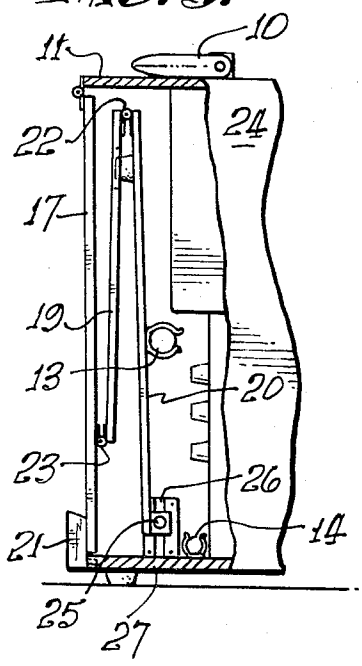
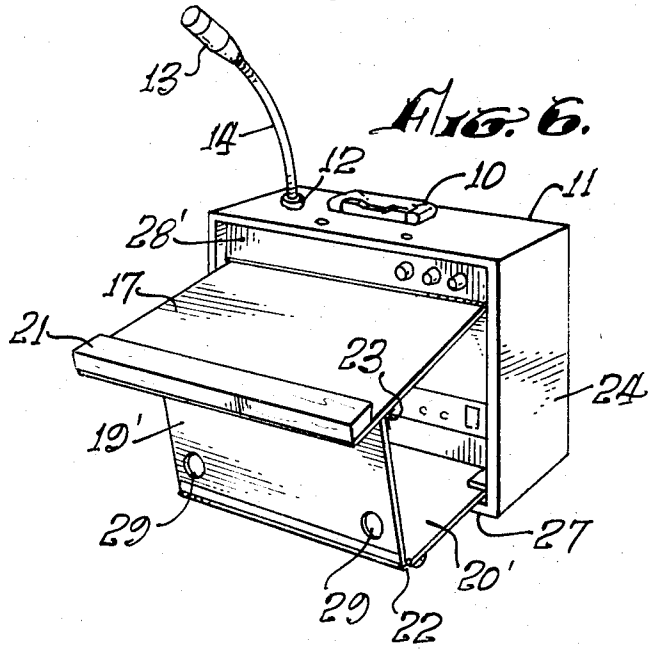


FIG. 6.



CARRYING CASE FOR PA SYSTEM WITH STOWED LECTERN

BACKGROUND OF THE INVENTION

This invention relates to a portable lectern, and more particularly to a carrying case for a portable PA system having a hinged rear panel which can be raised to an inclined position for use as a lectern.

Many types of portable PA systems have been provided with a carrying case having some part arranged to be used as a lectern. For example, the case may be provided with a slanting side panel which serves as a lectern surface while the case rests on it's opposite side on top of a table. In other arrangements, the carrying case is placed on the table upright, and a side panel is then swung out for use as the lectern. The problem with a swinging-panel arrangement is that of providing suitable support for the free end of the panel. Articulated braces extending from the bottom of the case to points on the side of the hinged panel near it's free end, will hold the panel in a fixed position relative to the case, but if the speaker should lean on the lectern it would easily tip over.

In one prior art arrangement, the rear panel of the portable PA case is pivoted up and over the top of the case until stopped in the desired position by the rear edge of the top. While the case is not so apt to tip over with that arrangement, the slanted panel is being supported at only one end so that the speaker is not able to lean too heavily except at the bottom of the slanted panel. A support could be provided between the top of the case and the free end of the panel thus swung up and over the top of the case, but then the top of the case would be covered by the slanting panel. Consequently, it would not be feasible to provide a microphone jack or a socket for a plug-in lamp on top of the case.

OBJECTS AND SUMMARY OF THE INVENTION

An object of this invention is to provide a portable case having a front panel facing the audiance and a rear panel hinged along the top so that it may be swung out at the bottom to an inclined position, and to provide a sturdy fold-out support for the free end of the rear panel while it is in the inclined position for use in supporting notes and books of the speaker.

Still another object is to provide a carrying case for a portable public address system having a panel hinged at the top so that it may be swung out to a slanting position, and to provide a sturdy fold-out support for the free end of the hinged panel.

These and other objects of the present invention are achieved in a carrying case for a portable PA system having a rear panel hinged to the case at the top so that it may be swung up and out through an angle greater than 90° and back to a desired slanted position for support of notes or books of a speaker. The panel is supported in the slanted position by a first member which extends down to the end of another substantially horizontal support member which is in turn supported by the top of a table or other surface. That first member is connected to the inside of the rear panel near its free end by a hinge. The foot of that first member is held in place relative to the case by a second member hinged to the foot end of the first member. The free end of the other member is pivoted in slots which permit that free end to rise freely in the case when the rear panel is closed by swinging the hinge between the two support members through an arc up and into the cabinet.

The novel features that are considered characteristic of this invention are set forth with particularity in the appended claims. The invention will best be understood from the following description when read in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is an isometric view of the front of a carrying case for a portable PA system embodying the present invention.

FIG. **2** is an isometric view of the rear of the case of FIG. **1** when it is opened for use.

FIG. **3** illustrates a detail of the case with the rest of the case broken away.

FIG. **4** illustrates the manner in which the case is closed from the open position of FIG. **2.**

FIG. **5** illustrates a side view of a portion of the case in the closed condition with part of the side panel and the rest of the case broken away.

FIG. **6** is an isometric view of a modified form of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to FIG. **1** of the drawings, a portable public address system is shown in a carrying case having a handle **10** connected to a top panel **11.** An input jack **12** is provided in the top panel for a microphone **13** connected to the end of a flexible stand **14** as shown in FIG. **2.** The microphone **13** and flexible stand **14** are stored on clips in the case when closed as shown in FIG. **5.**

A front panel **15** includes an upper section having a grill cloth **16** covering one or more speakers of the system. The rear of the case is covered by a panel **17** connected to the case by a hinge **18,** such as a piano-type hinge, in order that it may be swung out into a slanting position as shown in FIG. **2.** Fold-out members **19** and **20** will support the rear panel **17** in a slanting position for use as a lectern. A ledge **21** serves not only as a stop to keep the notes and books from sliding off, but also serves as a grip to facilitate raising the rear panel **17** to the slanting position.

The support member **19** is connected to the support member **20** by a hinge **22.** The other end of the support member **19** is connected to the rear panel **17** by a piano-type hinge **23** at a point which places the support member **19** in a substantially vertical position for support of the panel **17** while the member **20** is resting on a table or other horizontal surface.

The end of the support member **20** opposite it's hinged end is pivotally connected to each side **24** of the case using horizontal pivots **25** extending into vertical slots **26.** FIGS. **4** and **5** illustrate the manner in which the pivots **25** and slots **26** permit the pivoted end of the member **20** to rise in the case as required when the case is closed by swinging the hinge **22** in an arc up and into the case as illustrated by FIGS. **4** and **5.** The pivot and slot arrangement is shown more clearly in FIG. **3.**

The length of the support member **19** is chosen to place the rear panel **17** at the desired slant while the support member **19** is in the vertical position and the support member **20** is resting on the table. The length of the support panel **20** is then chosen to hold the hinge

22 in the proper position as shown in FIGS. 2 and 4. When the case is closed, the hinge 22 is at a height in the case which is established by the length of the support member 19 and the distance between the hinge 23 and the free end of the rear panel 17. That height is greater than the length of the support member 20 so that it's pivoted end must be permitted to rise in the case when it is closed. The novel pivot and slot arrangement shown permits that. However, it is to be clearly understood that such a pivot and slot arrangement is not necessary to practice the present invention. Some other equivalent arrangement may be provided instead, or having selected the desired slant for the rear panel 17, the support member 20 can be made of the proper length by adjusting the position of the vertical support member 19 further out and shortening the support member 19 as necessary to keep it vertical while in the supporting position, i.e., while the case is open for use.

In the embodiment just described, all of the public address system is contained in the case including electronic amplifiers and a control panel 28 having a combined on-off and volume control knob, an auxiliary microphone input control knob, and a general auxiliary input control knob together with an auxiliary microphone input jack, a general auxiliary input jack, and an auxiliary output jack. In a modified form illustrated in FIG. 6, the electronic amplifier may be housed in the upper part of the case above the upper edge of the rear panel 17 to place the control panel 28' outside of the case for the convenience of the speaker, particularly the control knobs in the event the speaker wishes to adjust volume to meet the demands of the audience.

Another more important variant of the present invention illustrated in FIG. 6 concerns support members 19' and 20'. Assuming the same slant is desired for the rear panel as illustrated in FIGS. 2 and 4 for the first embodiment, the lengths of the support members are selected to place the support member 19' in a position perpendicular to the support member 20' or some other position between the vertical position of FIGS. 2 and 4 and the perpendicular position relative to the panel 17 shown in FIG. 6.

This arrangement of the support member 19' perpendicular to the rear pane 17 has the advantage of placing support for the rear panel 17 more nearly in line with the force with which a speaker may tend to lean on the lectern.

It should be noted that in the different embodiments the member 20' will not itself rest on the table. Instead, the member 20' rests on rubber feet shown in FIG. 4 for the first embodiment. Holes 29 in the other support member accommodate the feet when the case is closed as shown in FIG. 5.

If this variant of the present invention illustrated in FIG. 6 is employed, the support panel 20' will necessarily be too short for it to be pivoted at a fixed point at the bottom of the case. Consequently, in this variant, the pivot and slot arrangement for pivoting the panel 20' at the bottom of the case, or some other equivalent means must be employed.

While particular embodiments of the present invention have been described, other modifications and variations may be employed without departing from the teachings of the invention. Accordingly, it is not intended that the scope of the invention be determined by the disclosed exemplary embodiments, but rather should be determined by the breadth of the appended claims.

What is claimed is:

1. In a case having a front panel, two side panels, a top panel and a bottom panel, the combination of

a rear panel connected along its top edge to said case by means for permitting it to be swung up and out through an angle greater than 90° and back to a desired slanted position of less than 90° from the starting vertical position.

first and second members for supporting said panel in said slanted position, said first member extending down from said panel to one end of said second member resting on a supporting surface, one end of said first member being hinged to said panel near the free end thereof and the other end of said first member being hinged to said second member at said one end thereof, the other end of said second member extending into said case, and

means for pivotally attaching said other end of said second member inside said case near said bottom panel, whereby the hinge between said support members may be swung up through an arc while said rear panel swings first upwardly from said slanted position and then downwardly to a vertical position to close said case with said support members securely stowed within said case.

2. The combination of claim 1 wherein said pivotal attaching means includes means for allowing the pivot of said other end of said second member to move in a plane in order to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maximum height in said case while said panel reaches said vertical position.

3. The combination of claim 1 wherein said pivoting means comprises pivots extending from sides of said second member near said other end thereof into elongated slots on said sides of said case, both of said slots having their lengths in a common plane at an angle with said bottom panel so selected as to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maximum height in said case while said panel reaches said vertical position.

4. The combination of claim 1 wherein the lengths of said first and second members are selected to secure said ends thereof hinged together in a supporting position with said first member in a substantially vertical position and said second member in a substantially horizontal position while said case is being supported by a horizontal surface.

5. The combination of claim 4 wherein said pivotal attaching means includes means for allowing the pivot of said other end of said second member to move in a plane in order to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maximum height in said case while said panel reaches said vertical position.

6. The combination of claim 4 wherein said pivoting means comprises pivots extending from sides of said second member near said other end thereof into elongated slots on said sides of said case, both of said slots having their lengths in a common plane at an angle with said bottom panel so selected as to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maxi-

mum height in said case while said panel reaches said vertical position.

7. The combination of claim **1** including a ledge along the free end of said rear panel on the outside to serve as a grip for said rear panel while said case is being opened and closed, and as a stop for notes, books and the like of a speaker while said case is open for use as a lectern.

8. The combination of claim **1** wherein lengths of said first and second members are selected to secure said ends thereof hinged together in a supporting position with said first member in a position within the range from approximately a vertical position to approximately a position perpendicular to said rear panel while said case is being supported by a horizontal surface.

9. The combination of claim **8** wherein said pivotal attaching means includes means for allowing the pivot of said other end of said second member to move in a plane in order to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maximum height in said case while said panel reaches said vertical position.

10. The combination of claim **9** wherein said pivoting means comprises pivots extending from sides of said second member near said other end thereof into elongated slots on said sides of said case, both of said slots having their lengths in a common plane at an angle with said bottom panel so selected as to permit said other end of said second member to rise in said case as said ends of said members hinged together reach a maximum height in said case while said panel reaches said vertical position.

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