

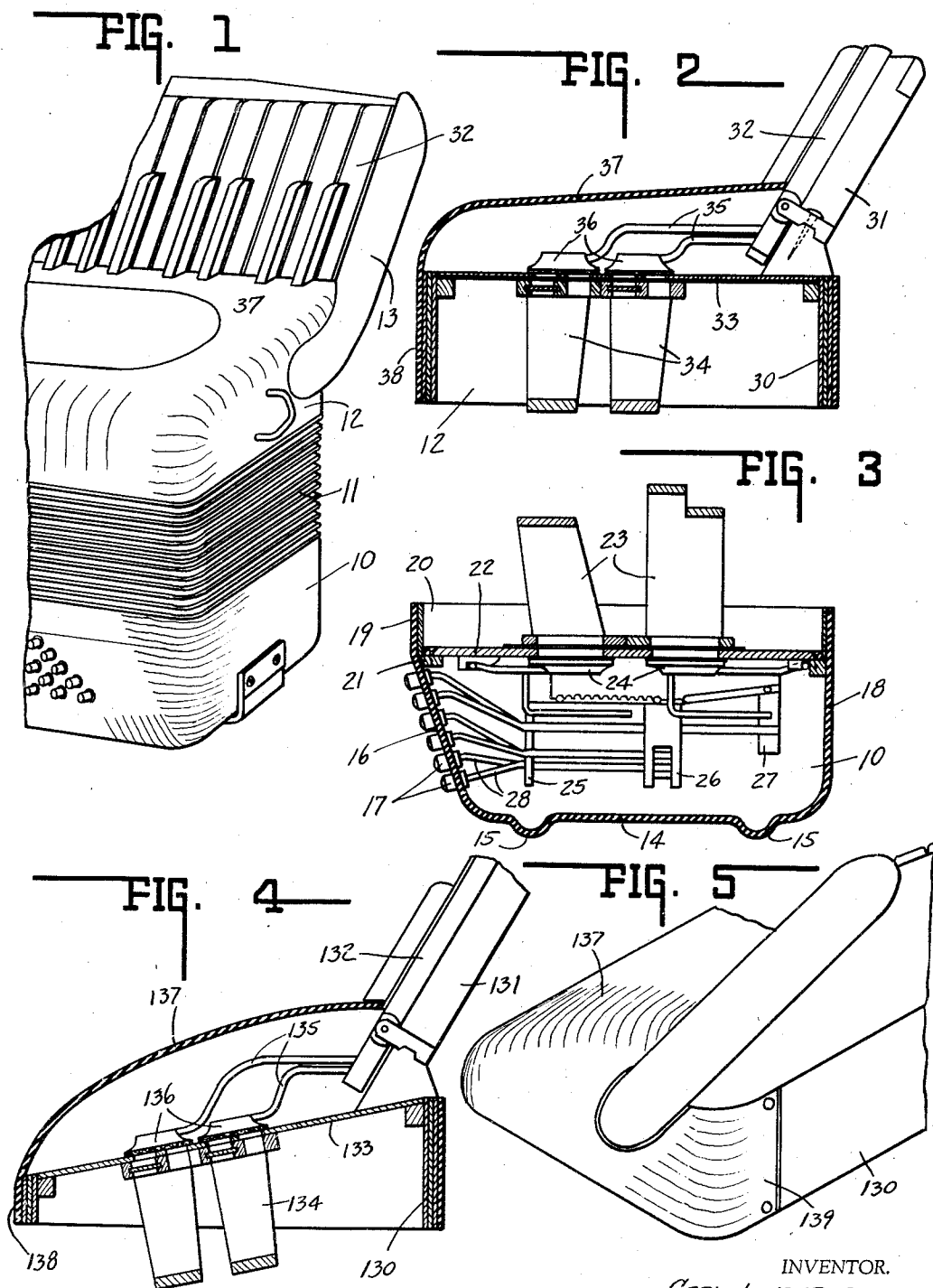
Jan. 2, 1940.

C. LINDBERG

2,185,984

ACCORDION CONSTRUCTION

Filed Oct. 19, 1938



INVENTOR.

CARL LINDBERG.

BY *Lockwood, Goldsmith & Galt*  
ATTORNEYS

# UNITED STATES PATENT OFFICE

2,185,984

## ACCORDION CONSTRUCTION

Carl Lindeberg, De Kalb, Ill., assignor to The  
Rudolph Wurlitzer Company, Cincinnati, Ohio,  
a corporation

Application October 19, 1938, Serial No. 235,720

7 Claims. (Cl. 84—376)

This invention relates to accordions, and particularly to the construction of the accordion box and the bass action, as well as its installation within the box. It also relates to the structure of the treble box, including the treble valve board.

It is the principal object of the invention to improve upon the construction of the various principal parts of the accordion in such manner as to simplify the same, improve the appearance, reduce the weight and at the same time permit of its manufacture at lower cost, partially obtained by the character of the structure and partially by the greater accessibility to the working mechanism for purpose of assembly.

Heretofore, it has been the practice to construct the conventional accordion bass box of plywood covered by a plastic, such as Celluloid. Screwed to such box is the so-called bottom board carrying the foot rests of the accordion, which is made of hard wood plywood. Thus, in order to gain access to the bass of the accordion, such bottom board must be unscrewed and removed. Also it has been the practice in standard construction to provide a separate removable bass piston board provided with a plurality of apertures through which the bass buttons, keys or pistons extend and operate. The above structure requires that the bass valve board be permanently secured by gluing against the valve strip within the box, and this is usually accomplished by gluing it from the bottom so that it becomes a permanent part of the bass box. The result is that the bass action must be assembled inside of the box on the valve board, or, if assembled outside of the box, it must be fastened to the valve board inside the box.

One feature of the invention resides in constructing the entire bass box, including the bottom board and piston board, of one piece of sheet plastic material, such as Celluloid, and wherein the bass valve board, instead of being permanently glued in from the bottom against the valve board strip, is removably fastened from the top to the bass valve strip. Thus, the entire bass action, including the valves, pistons, etc., may be mounted on the bass valve board before it is inserted in the accordion, and its assembly may be done outside of the box, thus affording much greater accessibility in the mounting, adjustments and regulation of the action. The particular advantage of this arrangement lies in the fact that instead of inserting the individual bass action buttons or keys through apertures in the bass piston board, they may be inserted simultaneously as a group. Instead of the apertures in the piston board providing a bearing for the buttons or keys,

they are more conveniently and accurately supported by a separate supporting bridge, thus permitting a more accurate alignment.

From the above construction, it follows that a more pleasing appearance of the accordion is possible because the plastic material may be moulded or formed to any desired shape, such as may more readily permit of streamlining and the elimination of unsightly outside joints such as may open up due to warpage or shrinkage. Also many separate parts in the assembly may be eliminated and during and after assembly the bass action is more readily accessible.

Another feature of the invention resides in the construction of the treble box, which, while having the sustaining portion thereof made of wood because of the required rigidity and the weights sustained thereby instead of covering it with Celluloid, as is the usual practice, it is encased in a removable one piece shell of plastic material, such as Celluloid, including the gallery or grille. By means of this arrangement, while the treble portion of the accordion is strong and rigid to support the weight, the single piece molded shell may be of attractive formation, rounded, curved or streamlined, and giving the appearance of the treble box and gallery being of one piece. This arrangement not only improves the appearance of the accordion, but reduces the cost by reason of the simplified construction.

The full nature of the invention will be understood from the accompanying drawing and the following description and claims:

Fig. 1 is a perspective view showing an end portion of an accordion illustrating the improvements herein described. Fig. 2 is a transverse section through the treble box. Fig. 3 is a transverse section through the bass box. Fig. 4 is the same as Fig. 2, showing a modified form of construction. Fig. 5 is a perspective view of the end portion of the treble box of the modified form in Fig. 4.

In the drawing there is illustrated an accordion comprising in general the bass box section 10, the accordion section 11, the treble box section 12, and the key bed section 13.

The bass section 10, as illustrated in Fig. 3, is primarily formed of a single piece of sheet plastic material, such as Celluloid or pyralin, which is dish shaped to house the bass action. The bottom board portion 14 is formed with protrusions for providing the usual feet by which the accordion is rested upon a table or the like. The front side portion 16 is provided with a plurality of apertures through which the accordion bass buttons or keys 17 freely extend. This section is

formed of the usual end portions and the back portion 18. The upper portion is squared off, as indicated at 19, to embrace a reinforcing section 20 of plywood or the like carrying therewith a valve board strip 21 to which the valve board 22 may be secured. The portion 20 is removably secured and locked to the accordion section 11 in the usual manner.

Separately and independently from the plastic molded housing the bass valve board 22 is assembled with the bass action including the reed blocks 23 mounted on one side thereof and the valves 24 mounted on the opposite side thereof. Supported on the board 22 there are provided a bridge 25 and brackets 26 and 27 carrying and supporting the finger wires 28 of the bass pistons or keys 17. This entire bass action assembly carried by the board 22 is first assembled, tested and tuned, after which it is mounted in the plastic housing through the open end, simultaneously inserting all of the keys or pistons 17 through their respective apertures in the piston board 16. The assembly is supported and removably secured to the valve board strip 21 by screws or any other suitable means, such as will permit ready removal.

By means of this construction, not only is a cheaper and a better appearing bass box section provided but the assembly and mounting of the bass section therein and its complete accessibility by convenient removal therefrom is greatly enhanced.

The construction of the treble box, as illustrated in Fig. 2, includes the provision of a rigid solid or plywood structure, indicated at 30, to which is rigidly secured the key board 31 upon which the keys 32 are mounted in the usual manner. Thus, a strong rigid construction is provided, such as will support the keyboard and, in fact, support the entire accordion through the medium of the usual shoulder strap. The treble valve board 33, carrying the reed boxes 34, is secured to the upper side of the wooden box, the opposite open side thereof being secured in the usual manner to the accordion section 11. This structure also supports in the usual manner the finger wires 35 carrying the valves 36.

Surrounding and embracing the wooden box 30 and at the same time forming the gallery 37, there is a pre-molded shell of plastic material, such as Celluloid, pyralin or the like. This shell curves downwardly from the gallery 37 to embrace the end walls and front side of the box, as indicated at 38. As best shown in Fig. 5, this shell is formed with the inwardly extending portions 139 which may be sprung about the back side of the box 30 so as to removably lock the shell in place.

By reason of this construction, the required weight supporting, and rigid key bed supporting, treble section is made available by the heavy wooden box formation 30, which is encased by a removable decorative covering or shell of material which may be conveniently formed and which not only covers the box, but also forms the gallery portion. This decorative shell may be removed for permitting of ready access to the valves and finger wire and also gives the treble section the appearance of being a single unit instead of the usual two units comprising the box and gallery.

As illustrated in the modified forms of Figs. 4 and 5, the gallery portion of the shell, as indicated at 137, is formed to slope in a graceful curve forwardly and downwardly to house an angularly disposed or sloping valve board, indicated at 133. This gallery encloses and houses the

valves 136 and valve arms 135, said valves controlling the reed blocks 134. The front and end walls of the box 130 are embraced by the lower portion of the shell, as indicated at 138, while the back wall of said box is partially embraced by the integrally formed extensions 139 of the shell which clamp thereabout, owing to the springiness of the material from which the shell is adapted to be formed.

The invention claimed is:

1. An accordion having a bass section, said section comprising an integral one-piece housing formed of sheet plastic material including end and back walls, a bottom board and a piston board, said piston board portion having a plurality of apertures therein, a valve board removably secured to the integral walls within said housing, and a bass action assembly supported by said valve board having a plurality of piston keys freely extending through said apertures.
2. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material including end and back walls, a bottom board and a piston board, said piston board portion having a plurality of apertures therein, a valve board removably secured to the integral walls within said housing, a bass action assembly supported by said valve board having a plurality of piston keys freely extending through said apertures, and a bridge support carried by said valve board for providing bearings in which said piston keys are slidably supported and aligned.
3. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material including end and back walls, a bottom board and a piston board, said piston board portion having a plurality of apertures therein, a valve board removably secured to the integral walls within said housing, a bass action assembly supported by said valve board having a plurality of piston keys freely extending through said apertures, and means carried by said valve board for supporting and aligning said piston keys and the movable parts of the bass action assembly.
4. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material to provide end and back walls with a bottom board having supporting feet projecting therefrom and a piston board incorporating a plurality of apertures therein, a unitary assembly of the bass action including a valve board insertable through the open side of said housing, said bass action having key pistons freely extending through said apertures, and a frame secured within the integral walls of said housing for removably supporting said valve board and bass action therein.
5. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material to provide end and back walls with a bottom board and a piston board incorporating a plurality of apertures therein, a unitary assembly of the bass action including a valve board insertable through the open side of said housing, said bass action having key pistons freely extending through said apertures, and a frame secured within the integral walls of said housing for removably supporting said valve board and bass action therein.
6. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material including end and back walls with bottom and piston boards,

and a frame secured within the integral walls of said housing for removably supporting a valve board and bass action therein.

5 7. An accordion having a bass section, said section comprising an integral one piece housing formed of sheet plastic material including end and back walls with a bottom board and a piston

board, the piston board portion being provided with a plurality of apertures therein, and a frame secured within the integral walls of said housing for removably supporting a bass action assembly therein having piston keys freely extending 5 through said apertures.

CARL LINDBERG.