Jan. 23, 1940. S. RABUAZZO 2,187,809

ACCORDION

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Fig. 1.

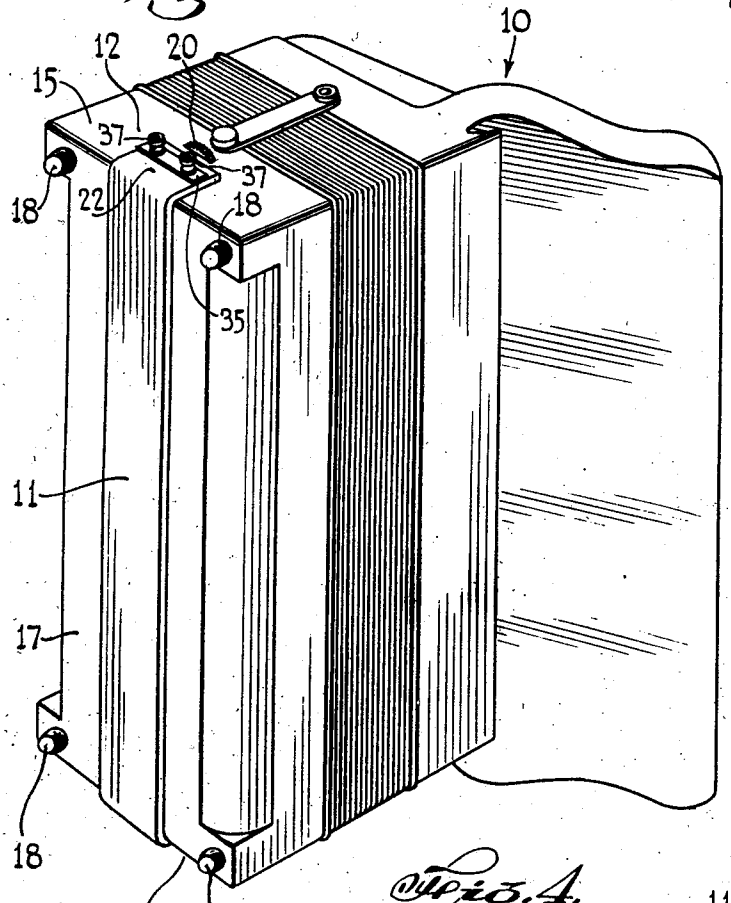


Fig. 2.



Fig. 4.

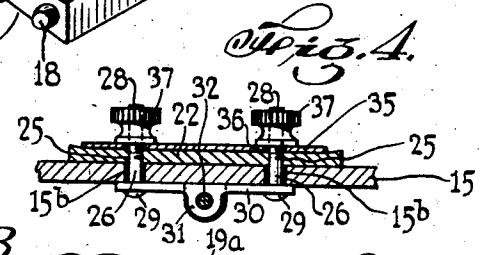
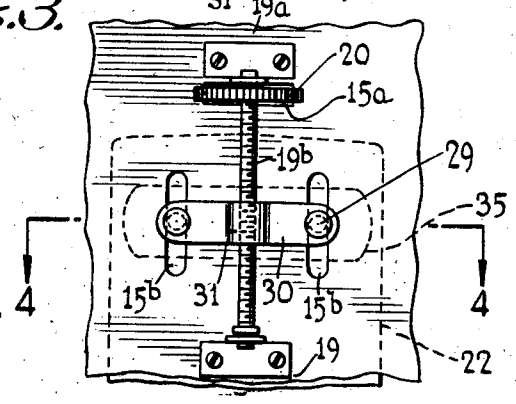


Fig. 3.



INVENTOR
SALVATORE RABUAZZO
BY
J. B. Felahin
ATTORNEY

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ACCORDION

Salvatore Rabuazzo, New York, N. Y.

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8 Claims. (Cl. 84—376)

This invention relates to accordions. It is particularly directed to an improved adjusting means for the accordion strap.

An object of this invention is to provide in an accordion, highly improved means for taking in or letting out the slack in the strap for adjusting the strap to accommodate the user.

A further object of this invention is to provide a simple and rugged adjusting means for the strap of an accordion, which shall be relatively inexpensive to manufacture, simple to manipulate, positive in action, and yet practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a perspective view of an accordion provided with a strap, and adjusting means therefor embodying the invention;

Fig. 2 is an elevational view of the accordion, with parts broken away and in cross-section, to show my improved strap adjusting mechanism;

Fig. 3 is a bottom plan view of my improved strap adjusting mechanism; and

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 3.

Referring now in detail to the drawing, 10 designates an accordion provided with a usual strap 11 and adjusting mechanism 12, embodying the invention at one end of the strap for taking up or letting out the slack in the strap 11.

The accordion 10 may be of any suitable construction, and is provided with a base 14 having end walls 15 and 16, and a bottom wall 17 provided with legs 18, at the corners thereof. The end wall 15 is formed for the purpose hereinafter appearing with a slot 15a parallel to, and spaced from the bottom wall 17. Said end wall 15 is also formed with a pair of parallel slots 15b disposed perpendicularly to the slot 15a, and on opposite sides of said slot. Said slots 15b are located between the slot 15a and the bottom wall 17.

Fixed to the under-surface of the end wall 15, are a pair of aligned brackets, 19 and 19a, disposed centrally between the slots 15b. The bracket 19 is located close to the bottom wall 17, whereas the bracket 19a, is located just beyond the slot 15a. Said brackets have downwardly extending aligned ears formed with bearing openings rotatably and non-slidably supporting a screw threaded shaft 19b.

The shaft 19b is disposed perpendicularly to the wall 17 and located between the slots 15b and just below the end wall 15, being parallel thereto. On the shaft 19b and fixed thereto, is a knurled wheel 20, the upper part whereof, projects through the slot 15a, so that a portion thereof may be seen above the end wall 15.

The strap 11 is flat and may be made of leather or any other suitable material. One end 20a thereof overlies and is fixed to the end wall 16 by means of screws 21 or in any other suitable manner. The strap extends lengthwise and centrally of the bottom wall 17 of the base 14. The other end 22 of the strap overlies the end wall 15 and covers the slots 15b. Said end of said strap is formed with a pair of spaced openings 25 registering with said slots 15b. Extending through the openings 25 and slots 15b, are screws 26, having threaded upper ends 28 projecting above the strap portion 22.

Fixed to, and supported by the lower ends 29 of said screws, and disposed adjacent the inner surface of the wall 15, is a plate 30. Said plate extends perpendicularly to the slots 15b and is formed with a central boss 31 having a screw threaded through opening 32 receiving and engaging the threads of the shaft 19b. On the strap end 22 is a flat, transverse washer or gasket 35, formed with openings 36 through which the screws 26 pass. Finger nuts 37 are screwed to the upper screw threaded ends 28 of the members 26.

It will now be understood that upon tightening the nuts 37, the strap end 22 will be fixed against movement to the end wall 15. To adjust the slack in the strap, the nuts 37 are first loosened and the wheel 20 is then rotated in one direction or the other depending upon whether it is desired to tighten or slacken the strap. Rotation of the wheel 20 in one direction will cause the member 30 to move in one direction due to the threaded engagement of the screw 19b within the threaded opening 32 of the boss 31. Rotation of the wheel 20 in an opposite direction will obviously move the member 30 in the opposite direction. As the wheel 20 is rotated, the members 26 will move together within their respective slots 15b to either tighten or slacken the strap.

After the strap has been properly adjusted, the nuts 37 may again be screwed tight to retain the strap in adjusted position.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

1. In combination, a wall, a screw threaded shaft rotatably and non-slidably supported by said wall and disposed on one side thereof and parallel thereto, said wall being formed with a slot perpendicular to said shaft, a wheel fixed on said shaft and having a portion projecting through said slot to the other side of said wall, a strap on said other side of said wall, said wall having a second slot disposed longitudinally of said shaft, a member having screw threaded engagement with said shaft, and means passing through said second slot and interconnecting said member with said strap.

2. In combination, a wall formed with a pair of slots, one perpendicular to the other, a pair of brackets on one side of said wall, a screw threaded shaft non-slidably and rotatably supported on said brackets and disposed perpendicularly to one of said slots and parallel to the other, a wheel on said screw threaded shaft projecting through said first slot, a strap, a member on one end of said strap passing through said other slot, and means on said member having screw threaded engagement with said shaft.

3. In combination, a wall formed with an opening, a screw threaded shaft rotatably and non-slidably mounted on one side of said wall and disposed parallel thereto, a strap on the other side of said wall, a member on said strap passing through said opening, means on said member having threaded engagement with said shaft, and means on said shaft and extending to said other side of said wall for rotating said shaft.

4. An accordion comprising a base having a bottom wall and end walls, one of said end walls having a slot parallel to said bottom wall, and a pair of slots perpendicular to said bottom wall and between said first slot and said bottom wall, and on opposite sides of said first slot, a pair of brackets within said accordion and fixed to the inner surface of said end wall, a screw threaded shaft non-slidably and rotatably journaled on said brackets and disposed centrally between and parallel to said pair of slots, a knurled wheel fixed on said shaft projecting through said first slot, a strap attached to the base of the accordion at one end thereof, the other end of said strap being formed with a pair of through openings, a pair of screw threaded members extending through said openings and pair of slots, a plate disposed within said accordion and traversing said pair of slots and fixed to said pair of members and formed with a screw threaded opening receiving and engaging the threads of said shaft, the upper ends of said pair of said screw threaded members extending above said strap end, and screw threaded finger nuts on said pair of screw threaded members.

5. An accordion comprising a base, a strap for said accordion, means for attaching one end of the strap to said base, said base having a wall formed with a slot, a screw threaded shaft rotatably and non-slidably mounted on said wall and extending longitudinally of said slot, the other end of said strap being formed with an opening, a screw passing through said opening and through said slot, a member on said screw having screw threaded engagement with said shaft, a nut on said screw for attaching said last mentioned end of said strap to said wall, and means for rotating said shaft to adjust the slack on said strap upon unloosening said nut.

6. In combination, a wall having a slot, and a pair of slots perpendicular to said first slot, a pair of brackets fixed to one side of said wall, a screw threaded shaft non-slidably and rotatably mounted on said brackets, and disposed parallel to said wall and centrally between and parallel to said pair of slots, a knurled wheel fixed to said shaft projecting through said first slot, a strap on the other side of said wall formed with a pair of through openings, a pair of screw threaded members extending through said openings and pair of slots, a plate on the first side of said wall traversing said pair of slots and fixed to said pair of members, and formed with a screw threaded opening receiving and engaging the threads of said screw threaded shaft, the upper ends of said pair of screw threaded members extending above said strap, and screw threaded finger nuts on said pair of screw threaded members.

7. In an accordion, a base part having a bottom wall and an end wall, said end wall being formed with a slot parallel to said bottom wall, a rotatable and non-slidable wheel partly projecting through said slot and partly disposed within said base part, said base part having an opening, a strap for said accordion, and a screw threaded connection on said strap extending in said base part through said opening cooperating with said wheel, for tightening or loosening said strap, upon rotating said wheel.

8. In combination, a housing formed with a slot and an opening, a knurled wheel partly projecting through said slot and partly disposed within said housing, means on the inside of said housing for rotatably and non-slidably supporting said wheel for rotation about its axis whereby said wheel may be rotated from the outside of said housing, a strap, and means on one end of said strap, extending within said housing through said opening and having a screw threaded connection to said wheel on the inside of said housing, to tighten or loosen said strap, upon rotating said wheel.

SALVATORE RABUAZZO.