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## EUROPEAN PATENT APPLICATION

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54 **Accordion with variable keys and one or two reeds in the "Cassotto".**

57 The accordion related to this description includes a supplementary sound box (1) fitted on the treble sound box (B1) which provides major sound volume and totally new sounds with respect to those which can be obtained with traditional "cassotto" accordions. The bottom of the "cassotto" (B1) has a

series of wide closely fitting slots (2) delimited only by thin transverse jumpers (2a). Between the "cassotto" (B1) and the box (1) there is a butterfly valve (4) which can be rotated by means of a standard lever mechanism.

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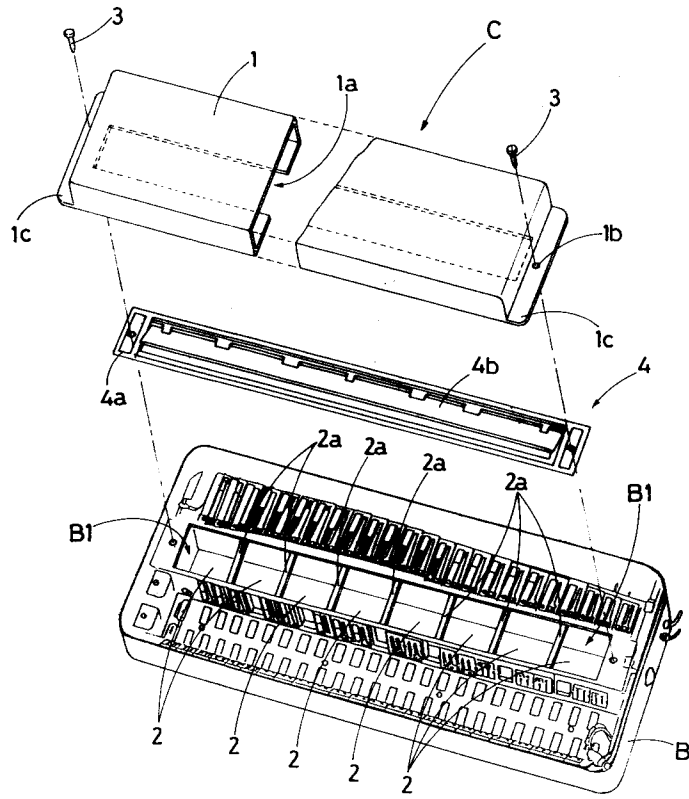


FIG. 2

The accordion according to the invention can be built with a varying number of keys (minimum 37 maximum 64) and 5 playing reeds for each key of the "treble" section and 5 or 6 playing reeds for each key of the bass section (accordion in 5th and 6th).

In the accordion described in this patent application, the cassotto is connected, as in traditional models, to the reed unit which vibrates when the air intakes on the keyboard are opened.

The design of the sound box is however totally new; it is in fact fixed to the cassotto, and, when the accordion is closed, it is positioned inside the bellows.

More precisely, this invention concerns a supplementary sound box installed on the external face (that is, the face turned towards the bellows) of the bottom wall of the treble sound box, known as the "cassotto".

The "cassotto" and this supplementary sound box can intercommunicate, by means of a command, in that on the long and narrow bottom wall of the "cassotto" there is a series of aligned wide slots through which air can flow from the "cassotto" into the supplementary sound box which has a long and narrow mouth whose size and shape correspond precisely with those of the slotted bottom wall of the "cassotto", outside of which there is a butterfly valve consisting of a long and narrow flap which closes to hermetically seal all the slots on the bottom wall of the "cassotto".

Outside the accordion, on the top edge of the keyboard immediately under the chin of the accordionist, there is a key which operates a lever which tips over the above butterfly valve in order to open all the slots, so that the "cassotto" and the supplementary sound box according to the invention, intercommunicate.

The latter consists of a parallelepiped box, which, in a preferred embodiment of the invention, is made of plywood, having a centre input on the bottom wall, consisting of a long and narrow rectangular slot, interfacing with the slotted bottom wall of the "cassotto".

For major clarity the description of the invention continues with reference to the enclosed drawings which are intended for illustrative purposes and not in a limiting sense, whereby:

- fig. 1 illustrates a prospective of the treble and bass sound boxes, open on the same plane, as well as the supplementary sound box overturned and separate from the treble sound box;
- fig. 2 is an exploded view of the supplementary sound box in question showing how the same is installed and positioned on the "cassotto" of the treble keyboard.

With reference to the above figures, the supplementary sound box (C), according to the invention, consists of a wooden parallelepiped box (1) sized so that it can be fitted in the bellows of the accordion abutting against the internal wall of the casing (B) of the treble keyboard, at the centre of which the bottom of the "cassotto" (B1), namely the traditional sound box in said casing, extends longitudinally.

In the accordion according to the invention, the bottom of the "cassotto" has a series of wide closely fitting slots (2) delimited only by thin transverse jumpers (2a).

On the other hand, box (1) has a large input, on the face abutting against the internal wall of the casing (B), consisting of an opening (1a) as long as the box (1) and as wide as the slotted bottom of the "cassotto" (C) so that said slot (1a) overlaps the above series of slots (2), precisely.

The box (1) is fixed by two standard screws (3), holding on to the frame of the "cassotto" (B1) and fitting into two holes (1b) at the centre of two flanging flaps (1c) on the projecting part outside the two transverse sides of the box (1).

Between the "cassotto" (B1) and the box (1) there is a butterfly valve (4), which includes a supporting external frame (4a) made of thin sheet plate into which a single flap (4b), is hinged on one of its longitudinal sides, so that when closed it can hermetically seal all the slots (2).

said flap rotates by means of a standard lever mechanism, which is not illustrated in the figure, in that it is like the type used for opening the valves by means of the keys on the keyboard or buttons on the bass panel.

The above lever mechanism is operated either by means of a single key with two operating positions or by means of two self-excluding buttons placed on the top edge of the keyboard so that the accordionist can press them with his chin without having to move his hands away from the treble keyboard or from the bass buttons.

## Claims

1. An accordion having a supplementary sound box fitted on the bottom of the "cassotto" characterized in that the bottom wall of the "cassotto" (B1) has a series of wide slots (2) through which said "cassotto" intercommunicates with the inside of a supplementary sound box (C) consisting of a parallelepiped wooden box (1) with a slot (1a) as long as the box (1) and as wide as the slotted bottom of the "cassotto" (B1) on the side abutting against the "cassotto" (B1); said box has two flanging flaps (1c) having a hole (1b) into which the screws (3) which fix the box (1) to the outside

of the bottom of the "cassotto", fit; outside the bottom of the "cassotto", there is a butterfly valve (4) consisting of a supporting external frame (4a) made of thin sheet plate into which a single flap (4b) is hinged on one of its longitudinal sides, so that when closed it can hermetically seal all the slots (2). 5

2. An accordion having a supplementary sound box fitted on the bottom of the "cassotto" according to the previous claim, characterized in that the rotation of the butterfly valve (4) occurs by means of a standard lever mechanism, like that generally used for opening the valves by means of the keys of the keyboard or the buttons of the bass; said lever mechanism is operated either by means of a single button with two operating positions or by means of two self-excluding buttons placed on the top edge of the keyboard immediately under the chin of the accordionist. 10 15 20

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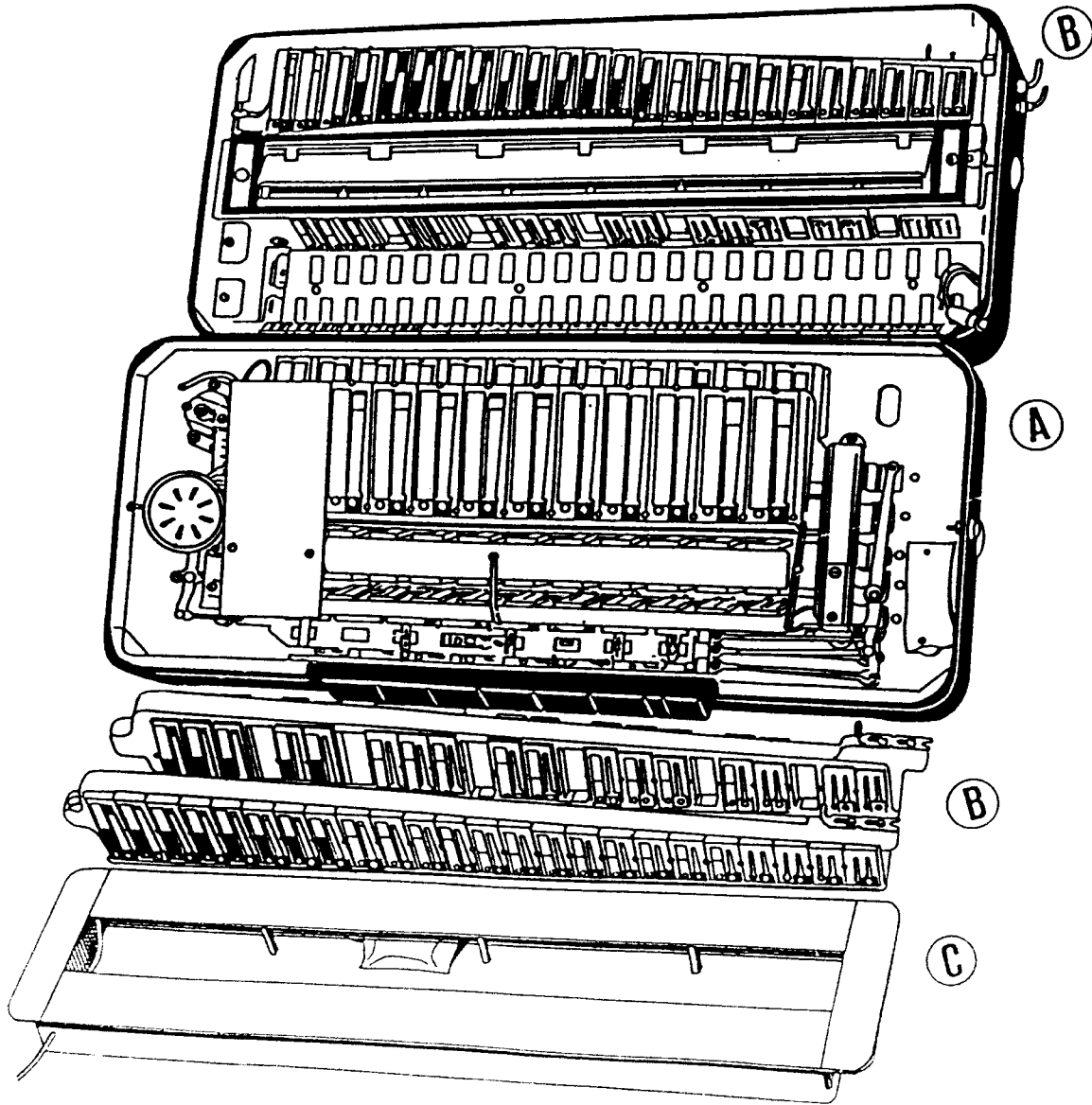


FIG. 1

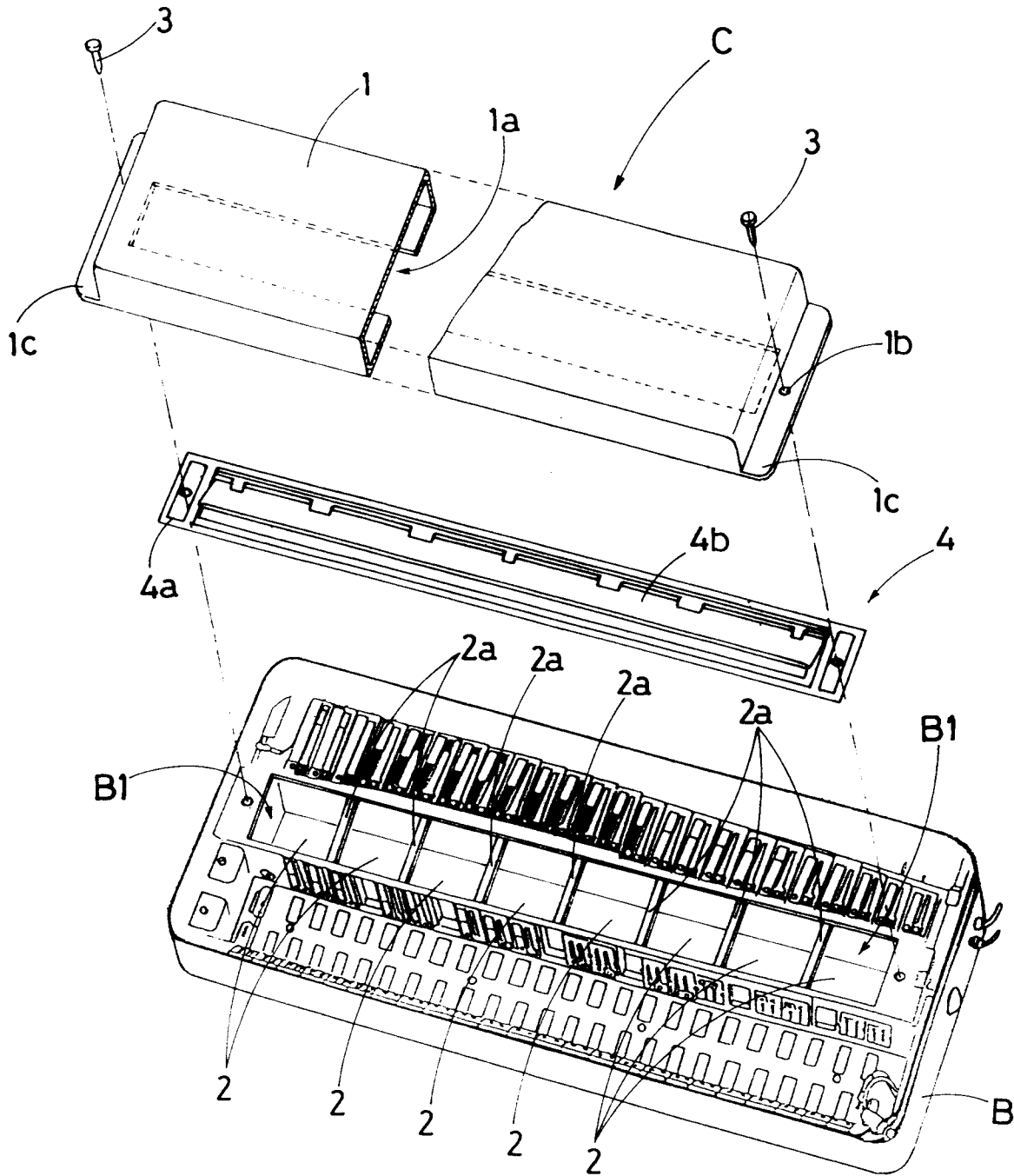


FIG. 2



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EUROPEAN SEARCH REPORT

Application Number

EP 92 83 0579

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-2 950 643 (K.SCHERER) * column 3, line 48 - line 53; figure 1 * * column 6, line 8 - line 54 * ---	1,2	G10D11/00
Y	FR-A-391 632 (MÜCHLER ET CIE) Résumé 1,3-6 ---	1,2	
A	US-A-3 960 045 (G.S.PETRUSHEVSKY EA.) * abstract * ---	2	
A	US-A-2 929 291 (I.BUSILACCHIO) ---		
A	CH-A-258 333 (TRAUGOTT LINK) ---		
A	DE-A-3 238 411 (MATTH.HOHNER) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G10D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 MARCH 1993	Examiner HAASBROEK J.N.
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