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(54) **EXERCISE APPARATUS**

(57) The invention relates to an exercise apparatus comprising vertical profiles (2), preferably situated on the sides of a table (1) that can be secured to the wall, each of the profiles (2) having a front guide (3) for securing, in an upwardly and downwardly and downwardly sliding manner, elements (7) for attaching springs, and a lateral internal guide (4) for mounting respective plates (5 and 6) for connecting the ends of bars (8,9,10 and 11), the plates (5 and 6) being upwardly and downwardly slidable and securable at any height by means of manually-actuated tightening screws (12). The device further comprises a mat (13), which, when in use, rests on the lower bar (11), and when not in use, closes the device in the manner of a front cover.

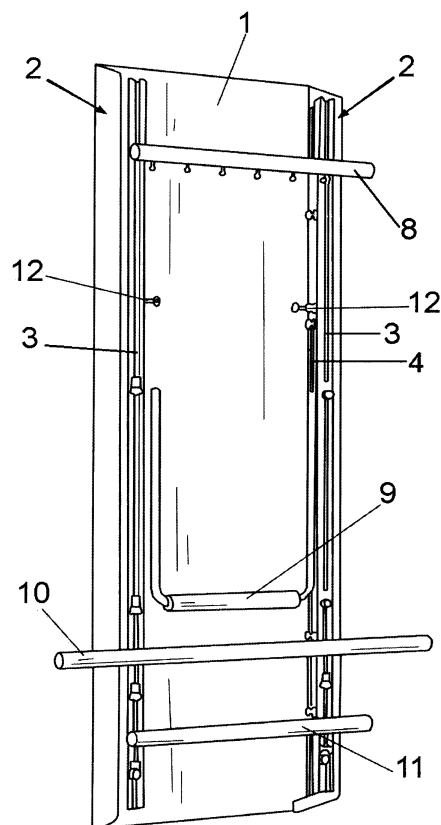


FIG. 1

Description

[0001] This invention refers to an exercise apparatus, specifically one of the type typically known as wall towers, wall units or wall boards to which items to perform Pilates or similar exercises are fixed.

[0002] The aim of the invention is to provide an exercise apparatus of the aforementioned type but with structural features that are simple and at the same time provide the maximum functionality and minimal occupation of space when not in use.

BACKGROUND TO THE INVENTION

[0003] There are many types of exercise apparatus for Pilates and other types of exercise based on a unit fixed onto a wall and which have accessories such as springs, bars and rings to carry out different types of exercise. However, in all these cases the apparatuses are complex, as each accessory requires its own attaching or securing element, and those with simpler configurations offer more limited functionality.

[0004] International application PCT/US2012/063423, published with number WO2013067431, describes an "improved exercise board" that cannot be used as a wall unit and does not take into account the presence of elements of great importance for current gym activities such as pull up bars or ballet barres. It also does not allow the subsequent addition of an adjustable push up bar.

[0005] For its part, patent CH577327 describes an exercise apparatus with wall bars which, in keeping with the one in the previously described document, does not include pull up bars or ballet barres and does not foresee the addition of a push bar.

DESCRIPTION OF THE INVENTION

[0006] The exercise apparatus proposed in this invention completely solves the aforementioned problem, as it is of the type that has a unit secured to the wall and comprises two separate vertically-fixed profiles, preferably on a board, which have either a guide or a front guide and lateral internal guide, with the lateral internal guide of each profile including sliding plates and elements for attaching springs. These plates, and therefore the attachment elements, are fixable using a wheel which is conveniently screwed into the plate.

[0007] In addition, on the front guide of each lateral profile there are more upward and downward sliding plates, between which bars for performing certain physical exercises are fixed. These plates, and therefore the bars, can also be fixed by way of wheels that are also screwed in, as in the previous case.

[0008] The apparatus has four bars, a top one or "pull up bar", a lower one or "push up bar", one for performing ballet exercises and lastly a lower one. In all cases the bars are attached to their respective pairs of plates that can be slid upwards or downwards thanks to the front

guides, and which can be fixed at any point or height by way of manually-actuated screws, the same being true for the rings and the spring holders.

[0009] The apparatus is complemented by a board/mat which rests on the lower bar to make it possible to perform the corresponding exercises and which can be placed vertically when not in use, hiding all the internal accessories of the apparatus and acting as a cover for the equipment.

[0010] There is also a variation whereby the front guides are replaced by a sufficiently resistant plate or sheet with a number of vertically-aligned holes, at different heights, used for fixing the springs, replacing the rings with brackets fixed to the front guide of the first version.

[0011] These and other features will be detailed throughout this description with the help of the accompanying drawings.

DESCRIPTION OF THE DRAWINGS

[0012] In order to complement the description that will be given below and to help achieve a better understanding of the features of the invention, using an example of how this will preferably be used, a set of drawings are provided as an integral part of that description, in which at least the following are represented:

Figure 1 shows a representation of the frontal view of an exercise apparatus created in accordance with this invention, including its key elements and accessories.

Figure 2 shows a close-up of the profile positioned vertically along each side of the apparatus board. The profile has the guides, one frontal and one lateral internal.

Figure 3 shows a close-up of the way in which the rings or spring attachments are secured, fixed onto plates sliding along the frontal guides established in the lateral profiles.

Figure 4 shows a close-up of the way in which one of the bars included in the apparatus that has been invented is secured, with the screw or manually-actuated wheel for fixing the bar at any desired height.

Figure 5 shows a perspective view of the apparatus that has been invented in use, with the ballet barre deployed and the support board for the user between the floor and the apparatus' lower bar.

Figure 6 shows a close-up of the second variant of the exercise apparatus, showing the sheet or plate with holes replacing the frontal guide of the profiles included in the apparatus.

PREFERRED EMBODIMENT OF THE INVENTION

[0013] As can be seen in the aforementioned figures, the apparatus that has been invented is of the type that has a board (1), which is secured to a wall, in whose board (1) are two lateral profiles (2), which are vertically positioned on opposite sides. These lateral profiles (2) run from the top to the bottom of the board (1) and include two tracks that act as guides, a front one (3) and a lateral internal one (4).

[0014] The sliding plates (5) and (6) run along these tracks (3) and (4) in such a way that the plates (5) sliding along the front tracks (3) comprise the means to secure the attaching elements (7) for springs. These attaching elements are in turn formed by eye hooks or similar items with a rigid element fixed to the appropriate plate (5).

[0015] In this way, that springs that can be used for certain physical exercises can be set at different heights and in a greater or lesser number, distributed along the track that comprises the front guide (3) of each vertical profile (2).

[0016] Similarly, on the lateral and internal guides (4) of the profiles (2), there are plates (6) for attaching the various bars: for pull up exercises (8), a push up bar (9), a ballet barre (10) and a lower bar (11).

[0017] The plates (5) and (6), corresponding to the elements (7) for securing the springs and to fix the various aforementioned bars (8, 9, 10 and 11), can slide upwards and downwards and be fixed at any height with a manually-actuated clamping screw (12).

[0018] The apparatus described in this way is complemented by a mat board (13) that when the apparatus is in use will rest on the lower bar (11) and when not in use acts as a cover positioned vertically covering all the accessories.

[0019] In its variant shown in figure 6, the features of the apparatus are essentially the same, the only change being the way in which the corresponding springs are secured, as in this case the front guide (3) is removed, and in its place there is a rigid and resistant sheet or plate (14) with holes (15) at different heights where the springs can be secured, maintaining the same features of the lateral internal guide (4) with its securing elements for the plates that will hold the various bars.

[0020] Even though it is not shown, marks or signs will be displayed on the profiles (2) to identify the level on each side, thus helping to ensure that the bars are positioned completely horizontally and the springs are at the same level.

[0021] Lastly, it is worth mentioning that the apparatus described makes it possible to carry out many types of physical exercise and is very versatile and compact, occupying very little space when not in use.

unit for the addition of accessories such as bars, springs and more, **characterised by** being comprised of two vertical profiles (2), both including specific fixation means for springs and a guide track (4) for assembly, with plates (6) which can slide upwards and downwards and which have attached to them bars and other elements that allow for the performance of different physical exercises, namely an upper pull up bar (8), a push up bar (9), a ballet barre (10) and a lower bar (11) which can be used to support a mat board (13).

2. Exercise apparatus, according to claim 1 **characterised by** the mat board (13) which when not in use can cover the internal accessories of the apparatus acting as a front cover for the device.
3. Exercise apparatus, according to claim 1 **characterised by** being comprised of a board (1) which has vertical profiles (2) at both sides of the front.
4. Exercise apparatus, according to claim 1 **characterised by** the fact that the selective means of attachment of the springs to carry out different types of exercise are front guides, which have plates (5) that can slide upwards and downwards and which include the elements to attach (7) the springs.
5. Exercise apparatus, according to claim 1 **characterised by** the fact that the selective means of attachment of the springs to carry out different types of exercise are resistant plates or sheets (14) with holes (15) to attach the appropriate springs, arranged in parallel to the vertical profiles (2).
6. Exercise apparatus, according to claim 1 **characterised by** the plates (6) that hold the bars (8, 9, 10, 11), being fixable at any height by way of manually-actuated screws (12).
7. Exercise apparatus, according to claim 4 **characterised by** the plates (5) that hold the spring attachment elements (7) being fixable at any height by way of manually-actuated screws (12).

Claims

1. Exercise apparatus, of the type that includes a wall

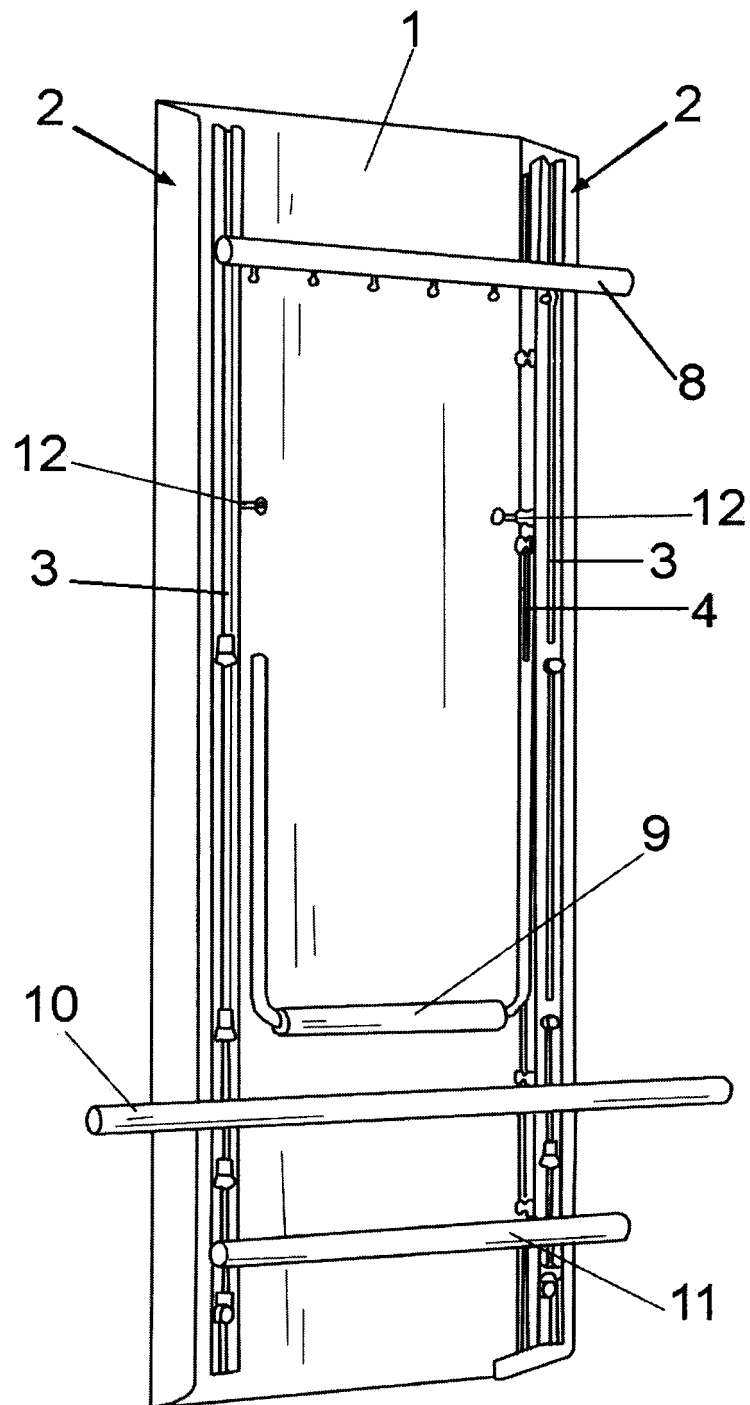


FIG. 1

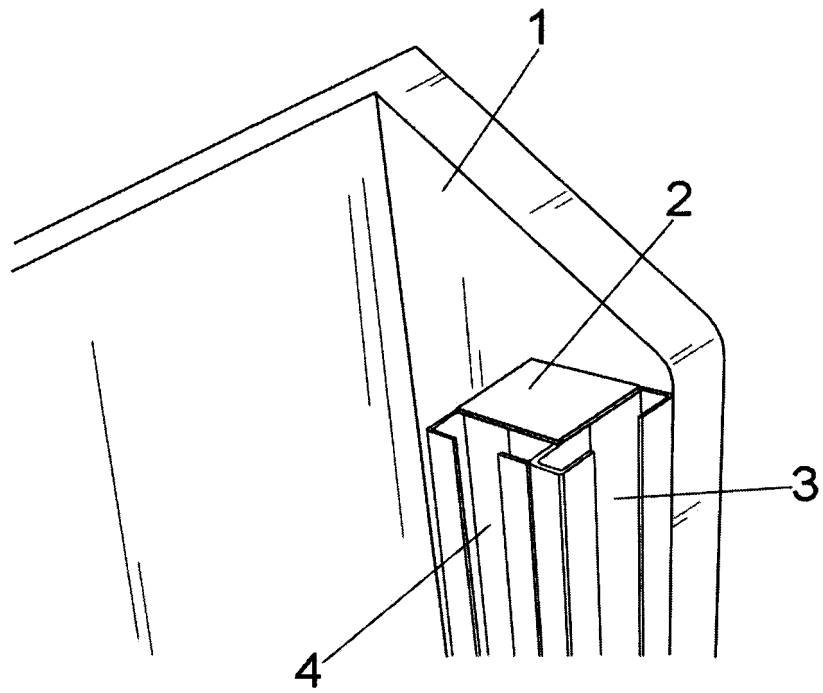


FIG. 2

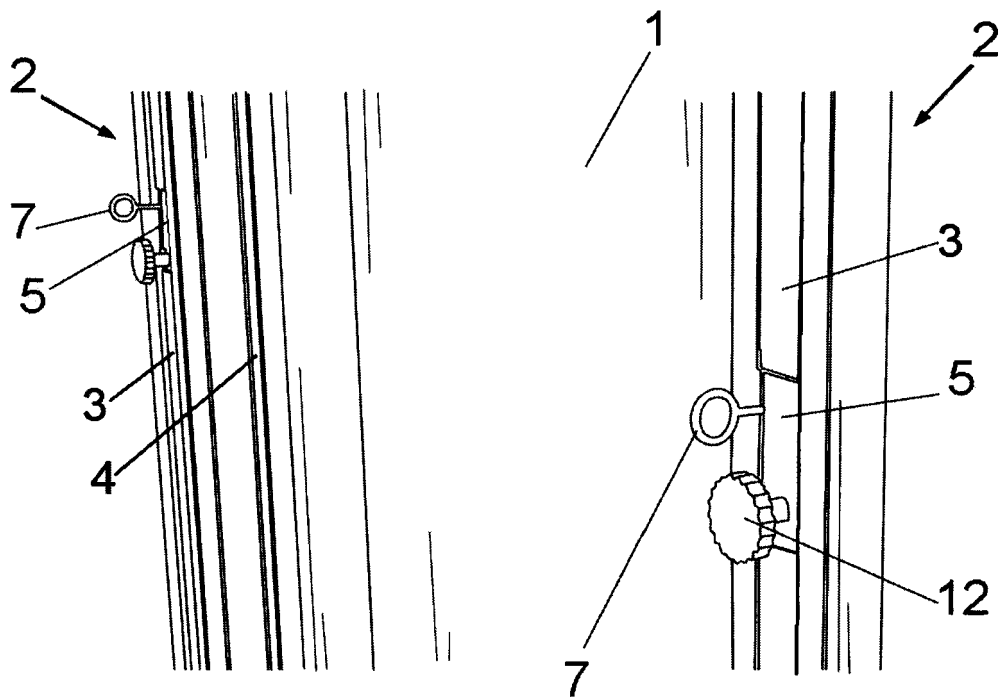
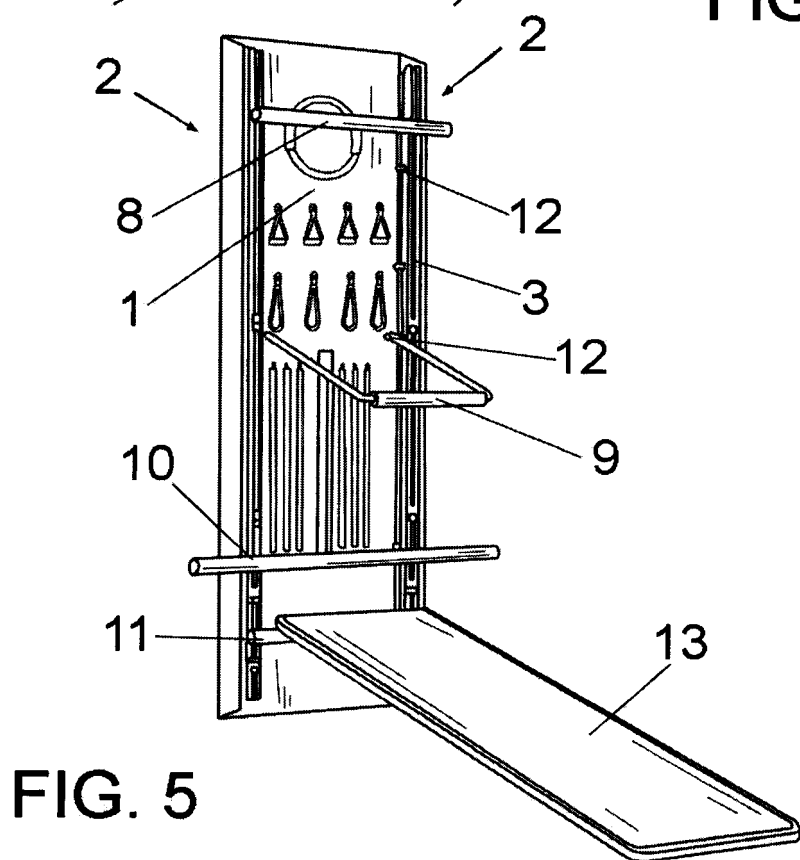
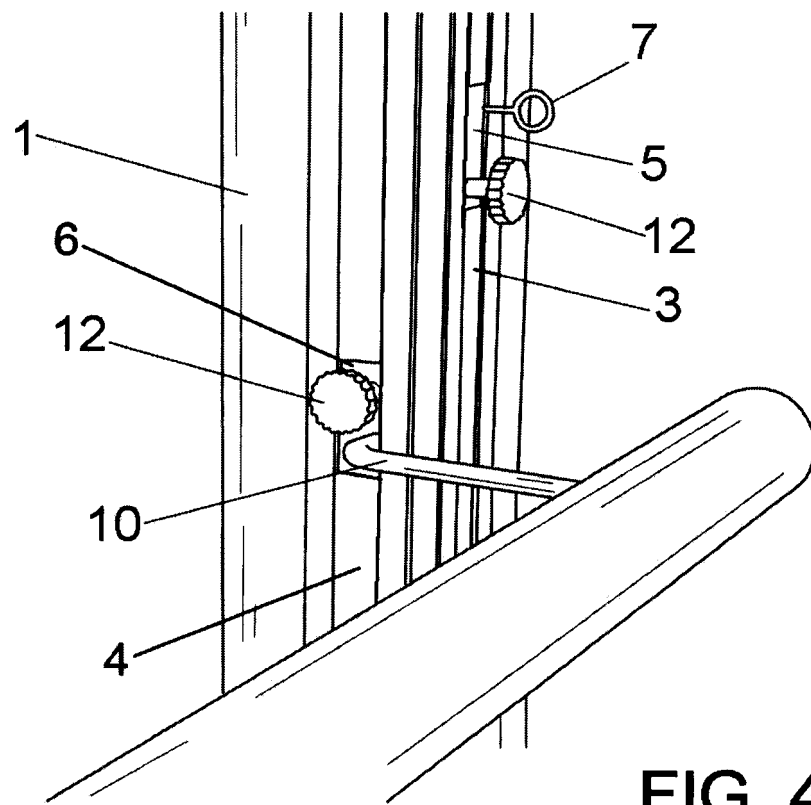


FIG. 3



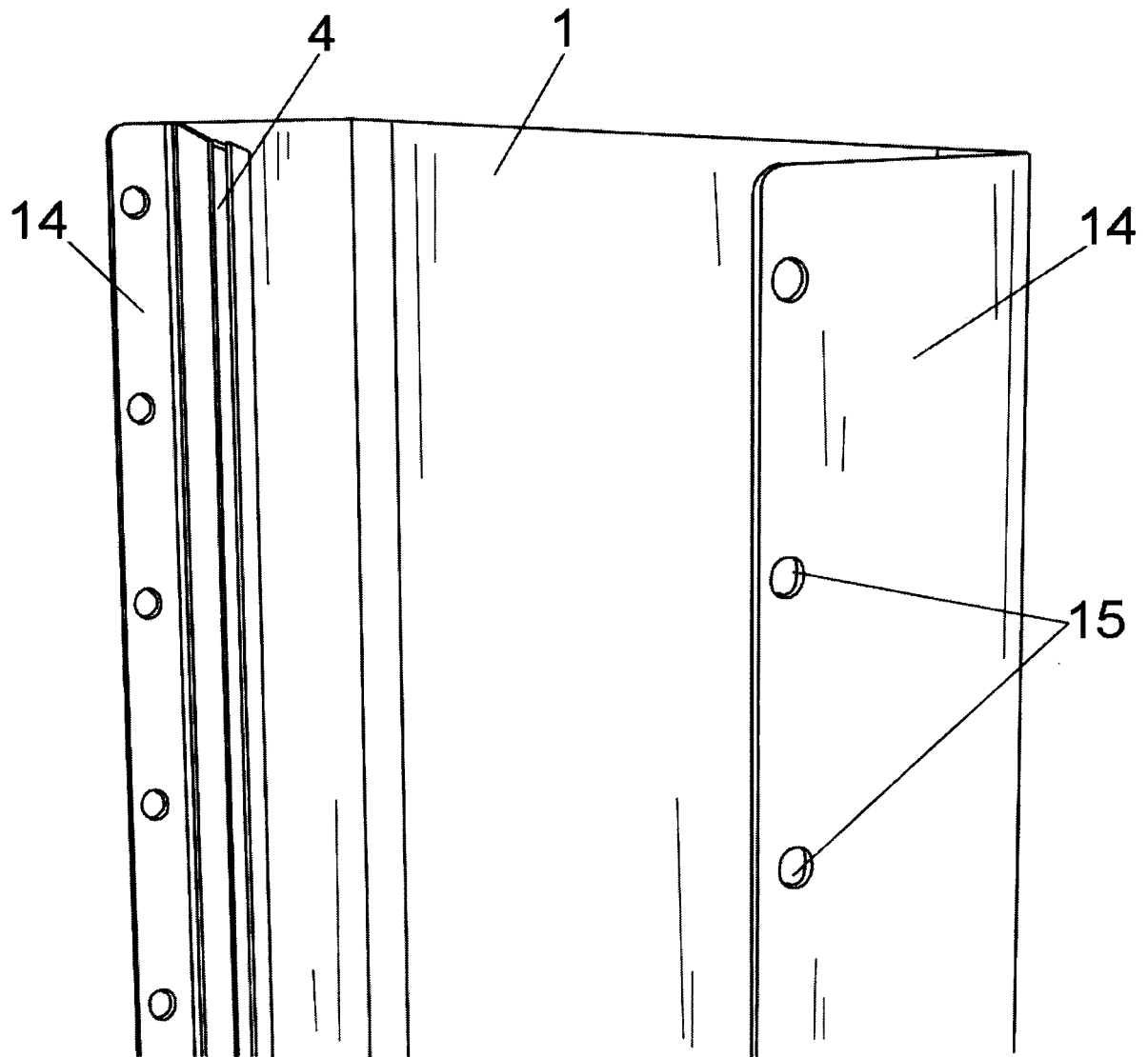


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2017/070112

A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2013067431 A1 (MAD DOGG ATHLETICS INC ET AL.) 10/05/2013, page 8, paragraph [41]- page 15, paragraph[64]; figures 5 - 12.	1-7
Y	CH 577327 A5 (WOLFF FRITZ) 15/07/1976, page 1, lines 1 - 15; claims 1-2; figures 1 - 2.	1-7
A	US 2009098987 A1 (MCBRIDE ROBERT ET AL.) 16/04/2009, the whole document.	1-7
A	US 2002123415 A1 (MARQUES JEAN PIERRE) 05/09/2002, the whole document.	1-3
A	US 5626546 A (LITTLE JAMES R) 06/05/1997, the whole document.	5

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance.	
"E" earlier document but published on or after the international filing date	
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"O" document referring to an oral disclosure use, exhibition, or other means.	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other documents, such combination being obvious to a person skilled in the art
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No.

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Information on patent family members

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Form PCT/ISA/210 (patent family annex) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES2017/070112

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CLASSIFICATION OF SUBJECT MATTER

A63B21/00 (2006.01)

A63B21/04 (2006.01)

A63B21/055 (2006.01)

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 2012063423 W [0004]
- WO 2013067431 A [0004]
- CH 577327 [0005]