

(19)



(11)

EP 1 897 475 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
27.06.2012 Bulletin 2012/26

(51) Int Cl.:
A47K 3/40 (2006.01)

(21) Application number: **07017549.2**

(22) Date of filing: **07.09.2007**

(54) **A stave or panel construction for a user supporting shower bottom**

Latten oder Panelstruktur für eine Duschwanne

Structure de bac de douche en lattes ou panneaux

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE
SI SK TR**

(30) Priority: **07.09.2006 IT MI20060316 U**

(43) Date of publication of application:
12.03.2008 Bulletin 2008/11

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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a stave or panel construction, specifically designed for forming the user supporting bottom of a shower and the like.

[0002] As is known, a shower bath construction usually comprises a bottom or base panel, made either of a plastics or ceramics material, operating both as a water collecting tray and as a supporting element for the user.

[0003] Shower bottoms including a water collecting tray made of a plurality of adjoining wood, aluminium or plastics (polymeric) material staves or panels, operating as a user supporting plane, are also known.

[0004] The above mentioned wood staves or panels provide a supporting surface which is very satisfactory from a comfort and aesthetic standpoint, but they have the drawback of a comparatively high cost, since the wood material to be used must resist against water or be waterproof.

[0005] Moreover, the mentioned wood staves or panels have a comparatively short useful life, with respect to aluminium or plastics (polymeric) material staves or panels.

[0006] In fact, the aluminium or plastics material (polymeric) staves or panels have very good waterproofing properties and a low cost, but, on the other hand, do not have satisfactory aesthetic characteristics.

[0007] The document DE 202 06 640 U1 discloses a panel construction comprising a bearing structural element made of a plastics material coated by a plate ceramic element.

SUMMARY OF THE INVENTION

[0008] Accordingly, the aim of the present invention is to provide such a stave or panel construction, specifically designed for making a user supporting bottom for showers and the like, which are provided both of very satisfactory aesthetic and functional characteristics.

[0009] Within the scope of the above mentioned aim, a main object of the invention is to provide such a stave or panel construction, having a practically unlimited useful life.

[0010] Yet another object of the present invention is to provide such a stave or panel construction which can be easily applied to existing bottoms, in replacement of prior wood bottoms or covering assemblies, as well as aluminium, plastics material and other material conventional bottom arrangements.

[0011] According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a stave construction, for forming a user supporting bottom for showers according to claim 1.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Further characteristics and advantages of the invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment of the invention which is illustrated, by way of an indicative, but not limitative, example in the accompanying drawings, where:

Figure 1 is a perspective view showing a pair of staves, according to the present invention, one of which being shown by an exploded arrangement, and the other being shown in an assembled condition;

Figures 2, 3 and 4 are front elevation views showing respectively a possible sequence of assembling steps for assembling the stave construction according to the present invention; and

Figure 5 is a cross-sectioned elevation view showing a portion of the bottom surface of a shower, having a plurality of bottom staves according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0013] With reference to the number references of the above mentioned figures, the stave construction according to the present invention, which has been generally indicated by the reference number 1, comprises a bearing constructional elements 2, made of a metal material, preferably aluminium, or a plastics (polymeric) material, coated by a ceramics plate element 3.

[0014] Preferably, said ceramics plate element 3 comprises a porcelain or the like material element, coupled by the bearing element 2 through a resin layer 4.

[0015] The thus made stave construction 1 can be applied to a shower bottom 5, of a per se known type, for replacing conventional staves, as made in a single piece, starting from wood, aluminium or plastics (polymeric) materials.

[0016] Thus, the stave construction according to the present invention allows to associate the strength and long duration properties, which are peculiar characteristic of aluminium, to aesthetic and comfort characteristics of a ceramics material.

[0017] In fact, the subject ceramics element can be made with different patterns and colors, and the user supporting surface thereof can be made with suitable finishing patterns, thereby being very comfortable for the user feet.

[0018] In this connection it should be pointed out that the surface finishing of the subject stave or panel can also have anti-sliding properties.

[0019] For making the shower bottom, said staves or panels are assembled on a base panel, to define therebetween a space or gap sufficient to allow water to flow therethrough, thereby said water can be easily and quickly collected in the underlying tray element and drained in

any per se known manners.

[0020] It should be apparent that the maintenance operations on the thus made staves or panels would be reduced to a minimum, i.e. to simple cleaning operations, since the ceramics layer and aluminium or plastics material structural element have very good waterproof characteristics.

[0021] It has been found that the invention fully achieves the intended aim and objects.

[0022] In fact, the invention provides a stave or panel construction which has a very high strength and duration and, in the meanwhile, very satisfactory touch and aesthetic characteristics, owing to the provided surface finishing pattern of a ceramics or porcelain material.

Claims

1. A stave construction (1) for forming a user supporting bottom panel (5) for showers, **characterized in that** said construction comprises a load bearing hollow stave element (2) made of a metal or plastics material, said hollow stave element comprising a hollow body having a horizontal flat plate-shaped top, two vertical slanted end side walls extending downwardly and a plurality of vertical inner partitioning walls defining a multiplicity of integral adjoining inner hollow chambers, each having a closed top and an open bottom, a plate ceramics element (3) being coated by a resin layer (4) to the upper surface of said stave element hollow body flat plate-shaped top.
2. A stave construction according to claim 1, **characterized in that** said stave element hollow body top is knurled.
3. A stave construction according to claim 1, **characterized in that** said stave element hollow body top has a tray configuration defining a tray peripheral rim for receiving said plate ceramics element therein.
4. A stave construction according to claim 1, **characterized in that** said stave element hollow body comprises two inner vertical partitioning walls defining in said stave element hollow body three said inner hollow chambers.
5. A stave construction according to claim 1, **characterized in that** said hollow stave element is made of aluminium or a polymeric material.
6. A stave construction according to claim 1, **characterized in that** said plate ceramics element comprises a porcelain material and is coupled to said hollow body top by a resilient resin layer.
7. A stave construction according to claim 1, **characterized in that** each said stave element is adapted

to be applied to a shower bottom in replacement of an existing wood, aluminium or plastics material stave to form on said shower bottom a shower foot supporting panel.

8. A stave construction according to one or more of the preceding claims, **characterized in that** said ceramics plate element is a patterned and colored plate element coated by an antislipping material.
9. A shower bottom foot supporting panel, **characterized in that** said shower bottom foot supporting panel comprises a plurality of stave elements according to any preceding claims, supported by a shower bottom and so adjointly arranged with respect to one another as to define a gap therebetween sufficient to allow shower water to flow therethrough to be quickly drained from said shower bottom.

Patentansprüche

1. Sprossenbau (1) zum Ausbilden einer unteren Benutzertrageplatte (5) für Duschen, **dadurch gekennzeichnet, dass** der Bau ein tragendes hohles Sprossenelement (2) umfasst, das aus Metall- oder Kunststoffmaterial hergestellt ist, wobei das hohle Sprossenelement einen Hohlkörper mit einer horizontalen, flachen, plattenförmigen Oberseite, zwei vertikale geneigte Endseitenwände, die nach unten verlaufen, und mehrere vertikale innere Abteilungs-wände, die mehrere einstückige, angrenzende hohle Innenkammern definieren, umfasst, welche jede eine geschlossene Oberseite und eine offene Unterseite aufweisen, wobei ein Keramikplattenelement (3) durch eine Harzschicht (4) auf die Oberfläche der flachen plattenförmigen Oberseite des Hohlkörpers des Sprossenelement geschichtet ist.
2. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** die Hohlkörperoberseite des Sprossenelements gerändelt ist.
3. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** die Hohlkörperoberseite des Sprossenelements eine Schalenkonfiguration aufweist, die einen Schalenumfangsrand zum Aufnehmen des Keramikplattenelements darin definiert.
4. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** der Hohlkörper des Sprossenelements zwei innere vertikale Abteilungs-wände umfasst, die drei der hohlen Innenkammern in dem Hohlkörper des Sprossenelements definieren.
5. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** das hohle Sprossenelement aus Aluminium oder Polymermaterial hergestellt ist.

6. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** das Keramikplattenelement ein Porzellanmaterial umfasst und durch eine elastische Harzschicht an die Hohlkörperoberseite gekuppelt ist.
7. Sprossenbau nach Anspruch 1, **dadurch gekennzeichnet, dass** jedes Sprossenelement dazu geeignet ist, im Austausch gegen eine bestehende Holz-, Aluminium- oder Kunststoffmaterialsprosse zum Ausbilden eines Duschbodens einer Duschfußtrageplatte auf einen Duschboden angewendet zu sein.
8. Sprossenbau nach einem oder mehr der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das Keramikplattenelement ein gemustertes und farbiges Plattenelement ist, das mit einem rutschfesten Material beschichtet ist.
9. Duschbodenfußtrageplatte, **dadurch gekennzeichnet, dass** die Duschbodenfußplatte mehrere Sprossenelemente gemäß einem der vorhergehenden Ansprüche umfasst, die von einem Duschboden getragen und derart angrenzend aneinander angeordnet sind, dass ein Spalt dazwischen definiert ist, der zum Ermöglichen genügt, dass Duschwasser zum schnellen Abfließen aus dem Duschboden dort hindurchfließen kann.

Revendications

1. Construction de latte (1) permettant de former un panneau de bac de douche (5), **caractérisée en ce que** ladite construction comprend un élément de latte (2) creuse support de charge, fait d'un métal ou de matière plastique, ledit élément de latte creuse comprenant un corps creux présentant une partie supérieure en forme de plaque plate horizontale, deux parois latérales verticales ayant une extrémité inclinée, qui s'étendent vers le bas et une pluralité de parois de cloisons verticales intérieures définissant une multiplicité de chambres creuses intérieures intégrales adjacentes, chacune présentant une partie supérieure fermée et une partie inférieure ouverte, un élément de carreau de céramique (3) étant revêtu d'une couche de résine (4) jusqu'à la surface supérieure de ladite partie supérieure en forme de plaque plate du corps creux de l'élément de latte.
2. Construction de latte selon la revendication 1, **caractérisée en ce que** ladite partie supérieure du corps creux de l'élément de latte est striée.
3. Construction de latte selon la revendication 1, **caractérisée en ce que** ladite partie supérieure du corps creux de l'élément de latte présente une con-

figuration de plateau définissant un rebord périphérique de plateau permettant de recevoir à l'intérieur de celui-ci ledit élément de carreau de céramique.

4. Construction de latte selon la revendication 1, **caractérisée en ce que** ledit corps creux de l'élément de latte comprend deux parois de cloisons verticales intérieures définissant dans ledit corps creux de l'élément de latte trois chambres creuses intérieures.
5. Construction de latte selon la revendication 1, **caractérisée en ce que** ledit élément de latte creuse est fait en aluminium ou en un matériau polymère.
6. Construction de latte selon la revendication 1, **caractérisée en ce que** ledit élément de carreau de céramique comprend un matériel en porcelaine et est couplé à ladite partie supérieure du corps creux par une couche de résine élastique.
7. Construction de latte selon la revendication 1, **caractérisée en ce que** chaque dit élément de latte est conçu pour être appliqué sur un bac de douche en remplacement de lattes existantes en matière plastique ou en aluminium ou en bois pour former sur ledit bac de douche un panneau de support.
8. Construction de latte selon une ou plusieurs des revendications précédentes, **caractérisée en ce que** ledit élément de carreau de céramique est un élément de carreau coloré et à motif revêtu d'un matériau antidérapant.
9. Panneau de support pour bac de douche **caractérisé en ce que** ledit panneau de support pour bac de douche comprend une pluralité d'éléments de lattes selon l'une quelconque des revendications précédentes, supporté par un bac de douche et donc agencés de manière adjacente les uns par rapport aux autres, pour définir entre ceux-ci un espace suffisant pour permettre à l'eau de la douche de s'écouler entre ceux-ci pour se vider rapidement dudit bac de douche.

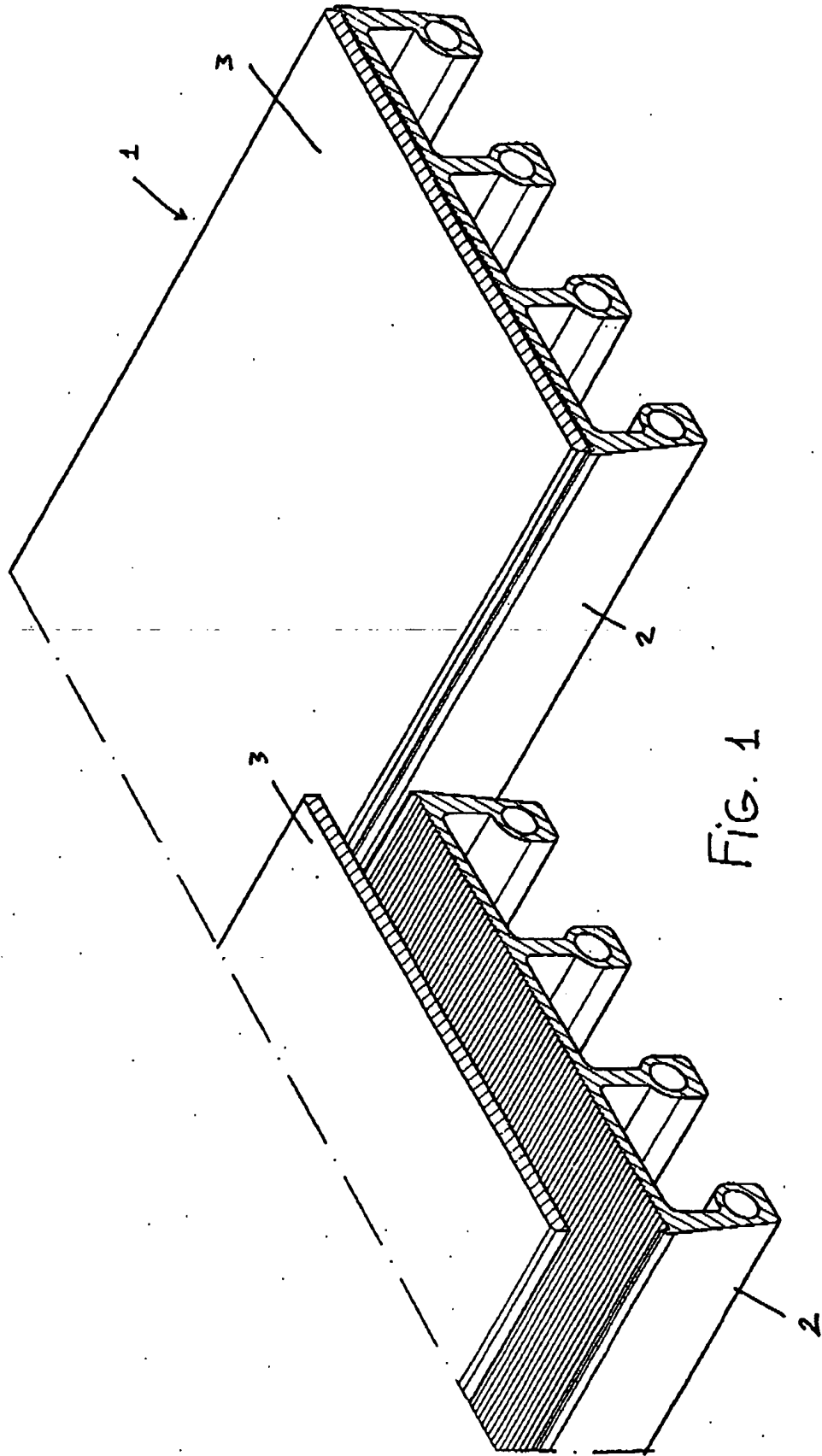


FIG. 1

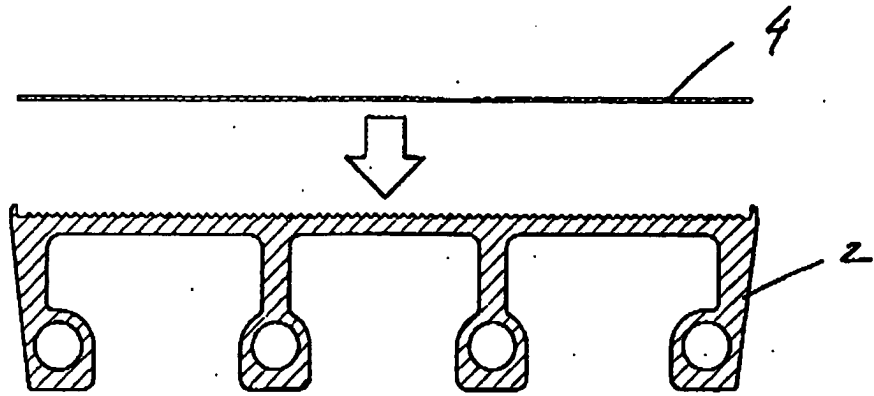


Fig. 2

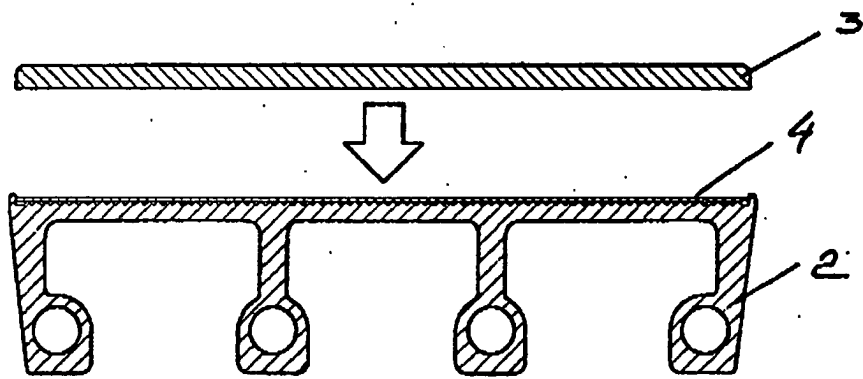


Fig. 3

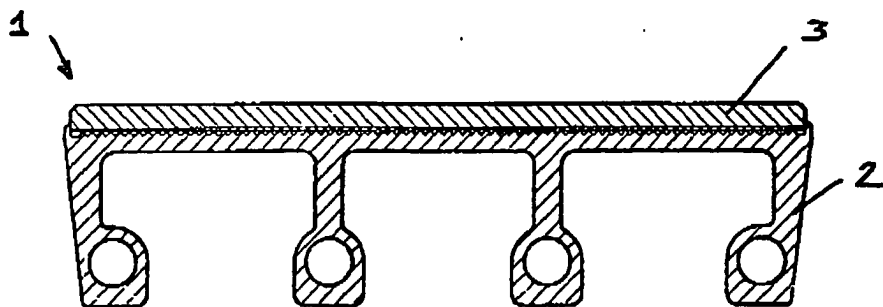


Fig. 4

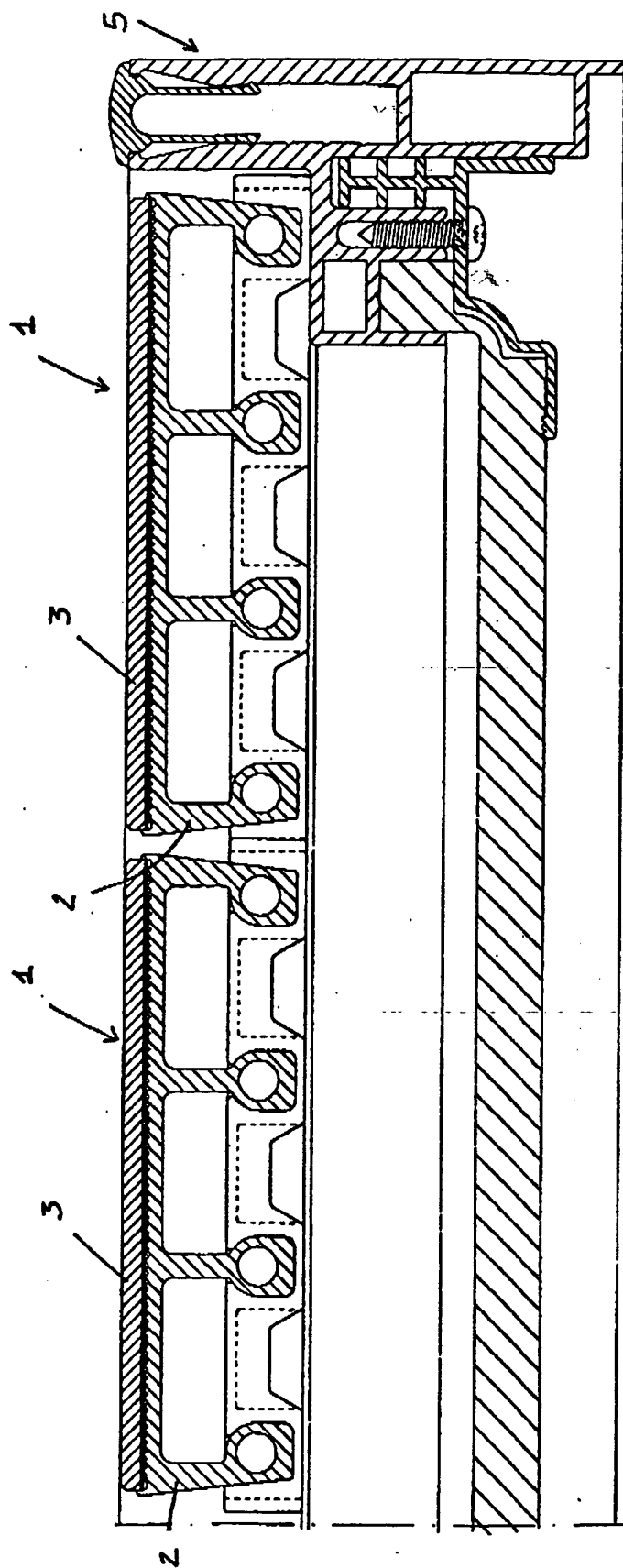


FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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